MAGAZINE OF ART



DARTHEA SPEYER CHARLES LESUEUR

LUDWIG HEYDENREICH ART AND SCIENCE

PETER BLANC
THE ARTIST AND THE ATOM

CLAY LANCASTER
CENTRAL PARK: 1851-1951



FREDERICK S. WIGHT
THE ECLIPSE OF THE PORTRAIT

CHARLOTTE WEIDLER
ART IN WESTERN GERMANY TODAY

YOU ARE INVITED TO ATTEND THE 1951 ANNUAL CONVENTION OF THE AMERICAN FEDERATION OF ARTS

June 1st and 2nd

Philadelphia, Pa.

"America's Cultural Responsibility in the World Today"

Outline Program

FRIDAY, JUNE 1

Morning

- 1. America's Cultural Responsibility in the World Today.
- 2. What Does the World Need or Expect Culturally from America?

Afternoon

- 3. The Dangers of Cultural Indifference.
- 4. What America Does and Can Do to Meet Her Cultural Responsibilities Abroad.

SATURDAY, JUNE 2

Morning

 Is American Culture Adequately Represented at Home? Answers from: the Arts, Radio and TV, the Press, Museums, Movies, Advertising and the Comics.

Afternoon

6. Program of Art Films with Discussion.

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Hotel Reservations:

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FINAL PROGRAM DETAILS WILL BE PUBLISHED IN THE MAY ISSUE

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VERNAL MOOD



It is spring, bringing to bloom the gratified narcissus. Your editor, prey of the season and prompted by Mr. Clay Lancaster's article in these pages, submits the following personal comments on Central Park.

Can anyone really know the Park who has not temporarily lost a child in its maze? The sudden awareness of its vast intricacy of plan, the thought of the lake's depth and slippery banks—these are the promptings of panic, remaining in mind long after the eventual encounter with a small, familiar figure, not far from home, trudging steadfastly. In later years, a boy grown older, roller skates and toy boats are put aside. The full athletic régime begins, and in spring an aging parent knocks out flies to an eager young outfielder, hitting the ball higher and farther each week in May, moving from field to field until the Park becomes as intimate a place as a country backyard.

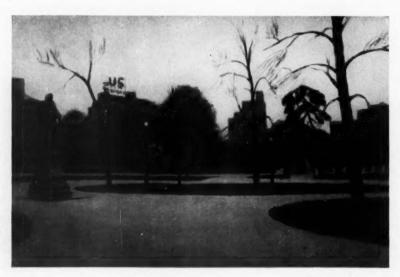
Lacking the companionship of a child, friend or a lover, there is much of comfort to be seen in the Park on solitary walks. I used to enter it each morning at Seventy-ninth Street and follow it to the southern end, taking a different route from time to time, but always stopping at the

zoo, where polar bears wheel on their quick, square paws and where, along the final alley, one sees the camels sedately pondering their hideous mange. Only the sea lions seem ever to be in a sportive mood. The hippo is lost in dreams of its incalculable bulk; the monkeys glare, scratch and race or, when bored, spit through the bars at human distraction. The great cats are sluggish in the morning. They repay our attention with prodigious yawns; their roars are tentative and unconvinced. But imagine confronting a lion on one's way to work! And there was the day when the puma flung itself screeching against its cage, and for a brief second the public recoiled in primordial fear.

From the zoo the usual walk was up to the Mall, whose terminus is shown in Edward Hopper's fine picture on this page. The Mall's statues of famous men are indifferent in quality, having been created in the later nineteenth century by weary academic hands. They do not, to name two examples, suggest Shakespeare's fire or the stark patience of Columbus; they are metal giants put to sleep. Yet an exception to this statement—and perhaps in this long retrospect I exaggerate its charm—is the statue of Robert Burns, not a great poet certainly, but in this effigy a figure of impressive posture and dignity. Finally, one remembers pleasurably the bronze portrait of Baron von Humboldt, as green with weather as the jungles in which he walked.

Returning home in the evening, one is aware of strange metamorphoses in the daylight Park. For example, a ravine and cliff near the lake assume in the fading light the most immense proportions, suggesting the limitless expanses of Church's paintings. It is difficult to believe that this effect was not carefully planned by Frederick Law Olmsted, a romantic to his fingertips and one of the greatest landscape designers our country has produced. Can anyone rival him today in imaginative sweep? Perhaps it is time that we took stock again of Olmsted's achievement, of that warm and appealing exuberance to which Central Park offers so remarkable a testimony.

J. 7. S.



Edward Hopper, Shakespeare at Dusk, 1935, collection Mr. John Astor, New York, courtesy Frank Rohn Gallery.

CLAY LANCASTER

CENTRAL PARK

1851-1951

This is the centenary anniversary of Central Park. It was a in the August, 1851, issue of the *Horticulturist* that the editor, the famous American authority on landscape gardening, Andrew Jackson Downing, urged the establishment of an extensive public garden in New York City somewhere "between Thirty-ninth-street and the Harlem River," describing many of the advantages and attractions that were to be realized in Central Park. His article was in protest to a movement on foot by the city to secure for such a purpose a 150-acre tract on the East River between Sixtyfourth and Seventy-fifth Street. In that same August, the Aldermen-concurring with public sentiment-appointed a committee to select a better location, and shortly afterwards the present site was decided upon. However, the corruption of local politics then in full flower and the partisan contest that ensued between the East Side and Central protagonists retarded procedure for several years. In 1855, a compromise ordinance passed both branches of the Common Council; it failed to include most of the southern half of the designated area and was wisely vetoed by Mayor Fernando Wood, since it would have crippled the proposed scheme. It was not until May of the following year that the Board of Commissioners of the Central Park was appointed. For the time being, this body, which included Mayor Wood and Street Commissioner Taylor, had little money at its disposal; and while awaiting adequate means, it invited seven competent persons (most famous among whom was Washington Irving) to act in consultation with it, and procured some preliminary surveys. The Board was reorganized by the Legislature in April, 1857, with provision for ample funds; and thus, after six years of inactivity, work on the Park was ready to begin. Downing, the original godfather of the project, had gone down with the ill-fated steamer, the Henry Clay, on the Hudson River in 1852, leaving the actual designing to be conceived and carried out by an as yet undiscovered landscapist.

There are two interesting stories that might be told about the Central Park (in the early days the article "the" was always included in its name). The first is the rather spicy exposure of abused politics that leeched onto an enterprise representing such a tremendous payroll—distributed among an average of 3,000 voting men! The graft, the appointments racket, the incompetence, the neglect, the slander, the jealousies and the waste of appropriations are revealed in a brochure published in 1882, entitled The Spoils of the Park. It is not this aspect that is to be discussed here, however, but rather the artistic content and the humanitarian ideal. The political fumblings were the principal hindrance to the development of Central Park as an esthetic expression serving a moral and hygienic need

to the community that within a few decades was to rise from fourth to first largest in the nation. Affiliating himself with the project was a man whose genius offered the necessary taste and knowledge, whose resistance combated the accompanying evils, and whose perseverance carried the load of responsibility during the years required for most of the design to be executed and the balance to be assured some measure of proper respect in the future. The man was, in fact, he who later disclosed the inadequacies connected with the venture—no other than the man who was the author of *The Spoils of the Park:* his name was Olmsted.

The coming into being of Central Park is, to a great measure, the account of Frederick Law Olmsted and of his work from the late 1850's until the mid 1870's. In a sense, he elected himself to be the controlling factor in the development of the Park. It was at a seaside inn, he tells in a biographical sketch, that he first heard from the lips of one of the Commissioners that there was a demand for a Superintendent. Olmsted long had been interested in landscape gardening; he had traveled through much of Europe viewing the great parks; he had been a farmer himself in Connecticut (he was a native of Hartford) and on Staten Island; and he had formed a friendship with the late A. J. Downing. His qualifications, he felt, were adequate; and so he inquired as to whether there might be any chance of his obtaining the position. Given some encouragement by his informant, Olmsted set out for New York.

One wonders that any man in his right mind, having become acquainted with the situation, would have accepted such a responsibility, much less sought after it. It was clear that the building of the Park would proceed, owing to two materialistic reasons; first, because of the pressure exerted upon the Commissioners by the leisure population who wished to obtain some benefits from the initial expense of five million dollars paid for the eight hundred acres of land; and second, because of pressure exerted by the laboring populace seeking employment. The original governors of the Park had been superseded by nonpartisan Commissioners as a result of the intervention of the Legislature; and the fact that the new Commissioners were not in good standing with the old-guard Common Council presented difficulties, inasmuch as they had to look to the Common Council to honor their requisitions. A large force of workmen already was employed on the grounds, supposedly to perform such duties as seemed pertinent to the foremen. The system of remunerating the men was to present each with a due-bill that would be payable when the City should enact the proper appropriation. It was hardly conceivable that a full-day's labor could be obtained for the receipt of any document as dilatory as a due-bill. The Superintendent, as

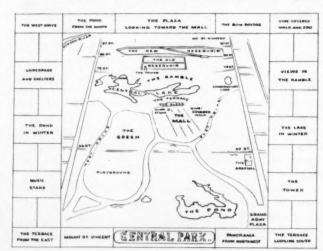


Fig 1. Panorama of Central Park bordered by scenes of the Park, lithograph by John Bachmann, 1868, Museum of the City of New York (see diagram).

outlined to Olmsted, was to function as the "executive officer of the Engineer with respect to the labor force, and . . . have charge of the police and see that proper regulations were enforced in regard to the public use of the Park." The design, apparently, was not considered of primary importance. For the time being, the landscape was expected to develop itself into something resembling a serviceable public pleasure-ground.

Frederick Law Olmsted was possessed of a vision; and although at first rejected on the excuse that he was not a "practical man," his election finally was passed by the Park Board because the autograph of Washington Irving appeared on his papers. The appointment was made on September 11th, 1857.

At this time, the Park extended from Fifth to Eighth Avenue and from Fifty-ninth to One Hundred and Sixth Street—the additional section as far as One Hundred and Tenth Street being in process of acquisition from 1859 to 1863. It was a rectangle measuring half a mile from east to west and two and a half miles from north to south, located practically in the center of Manhattan Island. The city of New York lay south of it, except where straggling suburbs invaded the domain recently set aside for the Park. A few rude embankments and ragged excavations gave evidence of the beginning of streets in this area. A colony of squatters was sheltered in squalid shanties or camped in



the open air in the southern quarter of the Park, a dirty crew of cinder-sifters, rag-pickers and swill-men constituting its "aristocratic classes, unless now and then some thief or bolder criminal glorified its huts or holes with a more famous presence." Herds of swine were nourished upon "the sickish feculence of distilleries"; and wretched stumptail cows brought their owners a meager revenue, "poisoning the city infants with their infectious milk." "It was a

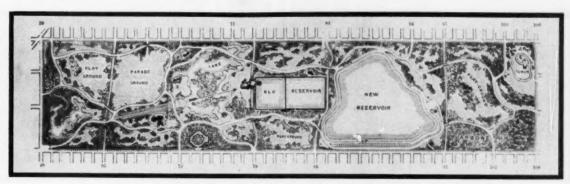


Fig 2. First study of design for Central Park, from a woodcut modeled on the Olmsted and Vaux competition plan (from Description of a Plan for the Improvement of The Central Park, New York, 1868).

miserable realm of barrenness, stench, filth, poverty, law-lessness, and crime." Other sections were tenanted by less objectionable establishments. There were two or three decent residences—long since disappeared—and the State Arsenal, erected in 1847, that stands today near Fifth Avenue in the center of the Zoo, opposite Sixty-fourth Street. The extension of 1863 contained a small, cubic stone building, said to have served as a blockhouse during the war of 1812, and the large, rambling wood Convent of Mount St. Vincent—soon converted into a restaurant, and its chapel into a gallery for Thomas Crawford's sculpture.

The physical features of the terrain appeared discouraging. Great ledges of bald, unsightly rock rose above stagnant pools and swamps that had to be drained, with only a few scraggly trees, bushes and mostly weeds tufting the intermediate levels. To add to its adverse features, a double reservoir covering thirty-five acres occupied the middle portion of the Park (on a line from Seventy-ninth to Eighty-sixth Street, Sixth to Seventh Avenue); and a new and larger reservoir of one hundred and six acres was to be built to the north of the existing body of water, thereby reducing communications between the Upper and Lower Park to a comparatively narrow strip of land on the Fifth Avenue side, and but a slightly wider strip on the west. Also, several thoroughfares had to be provided at intervals along the two-and-a-half-mile length to accommodate the volume of commercial traffic that would accompany the inevitable growth of the city northward. Could a unified design be achieved with such limitations and requirements?

Early in 1858, the Board offered four premiums, of \$2,000, \$1,000, \$750 and \$500 for, respectively, the first, second, third and fourth best layouts submitted for improving Central Park. One of the men who determined to enter the competition was a young architect, formerly of London, who had been brought to this country in 1850 by A. J. Downing as a collaborator in landscape and architecture. His name was Calvert Vaux; and after Downing's untimely death, Vaux published some of the schemes that had been in process in a book designated Villas and Cottages (New York, 1857), dedicated to his benefactor. Already to his credit was the landscaping of the Romanesque Revival Smithsonian Institution and part of the Capitol grounds in Washington. Vaux, realizing that the Superintendent was not only thoroughly familiar with the peculiar topography of the area, but was a man of taste and creativity, invited Olmsted to join forces with him in preparing in partnership a plan for the forthcoming contest. The result was entered anonymously under the name Greensward, which, over the work of thirty-nine contestants, was awarded the first prize on April 28th, 1858. During the course of the following month, Olmsted was given the title Architect-in-Chief of Central Park, and Vaux was appointed Consulting Architect. The work of laying out the Park according to the prize plan began about June 1st.

The authors of Greensward published in 1858 a Description of a Plan for the Improvement of The Central Park, in which they stated their belief that the various systems of the principal authorities on landscape gardening, "e.g., of /Sir Uvedale/ Price, of /Humphrey/ Repton, of the Italians, of Downing, &c., are not really antagonistic, but rather parts of one whole; and in this view . . . /they were/ sustained by that gifted and laborious man, the late Mr. Loudon." Through his books, the Englishman John Claudius Loudon had stimulated the mind of A. J. Downing, who later reciprocated by editing the American edition of Mrs. Loudon's Gardening for Ladies. One notices that the French formal gardeners are not included among the landscape authorities, thereby indicating that the ideal was that of the English park system-the natural (as opposed to the geometrical) garden, which had been inspired by the irregularities of Far-Eastern landscaping. The plan itself may look rather amorphous (Fig. 2) unless related to the existing region (Fig. 1). The design became an actuality much as it had been first conceived on paper. Except for the 1863 extension four blocks long that provided the large body of water at the northeast end, known as Harlem Meer, the only noteworthy changes were a further development of the Ramble, Conservatory Lake and a proposed conservatory replacing the octagonal flower garden on the east side at Seventy-fourth Street, and circles (the best known among which is Columbus Circle) at the southwest and two northern corners.

Central Park was the first sizable pleasure ground in America to be designed as a whole and to be carried out according to a predetermined plan (Fig. 3). The original Olmsted and Vaux competition drawings consisted of a layout 11 by 3½ feet, tinted with watercolor (now framed and hanging in the third-floor hall of the Arsenal), and a number of existing and corresponding proposed views rendered in pencil and watercolor (at present on loan to the Museum of the City of New York). It is unfortunate that the competition entries are too faded to be reproduced, because in them could be told better than in words the artistry of the endeavor.



Fig 3. Map of Central Park, 1868, including enlargement from 106th to 110th Street (from Description of a Plan for the Improvement of The Central Park, New York, 1868).

The Upper Park was meant to be as informal as possible, a stretch of unspoiled landscape composed of meadows, hills, valleys, woodlands, brooks and still bodies of water. This was the last portion to be finished, its completion being of very recent date. The Lower Park was of more variable character. A system of meandering roadways skirted the Park, with numerous underpasses separating pedestrian from vehicular traffic. A stroke of genius prompted the four indispensable transverse thoroughfares (at Sixty-fifth to Sixty-sixth, Seventy-ninth, Eighty-fifth to Eighty-sixth and Ninety-sixth Streets), to be sunk at such a depth, and otherwise concealed by trees and shrubs, as to be entirely withdrawn from the attention of those enjoying themselves in the park. The bridges spanning the four roadways carry soil and are planted, so that one passing over them sees continuous foliage to either side and little suspects that commercial traffic is speeding beneath. Thus continuity was achieved where otherwise there would have been five separate pieces of ground.

In the heart of the Lower Park is the one formal element, an esplanade two hundred feet wide shaded by four parallel rows of American elms, with a thirty-five-foot paved promenade in the center. This is the Mall, that extends from a latitude above Sixty-sixth Street in a northerly direction twelve hundred feet to the Plaza overlooking the Terrace with its circular pool and Bethesda Fountain (the bronze figure said to have been cast in Munich), the Central Lake beyond. A roadway crosses the Plaza, and wide, twin flights of steps with impressive railings of Albert freestone, magnificently carved, lead down to the Terrace (Fig. 5). Between the staircases, on the lower level, is an Italianate arcade that opens into a large, deep gallery under the

roadway, its ceiling bright with Minton tiles; and at the south side, broad stone steps ascend to the Mall. The spatial effect and the architectural treatment of these features are monumental. It is a pity that vandals have spoiled much of the exquisite carving—most of the birds being decapitated. The slopes to either side of the staircases now present a measly scattering of trees which tends to dilute the dramatic contrast of powerful stone masses against smooth, velvety lawns. The Mall was the rendezvous of music lovers; from an exotic Oriental Music Stand (Fig. 4) near the upper end, the Central Park Band poured forth its stirring airs on fair Saturday afternoons. Visitors listened from the elevated Vine-covered Walk to the east, and the music penetrated to the Casino (built in 1871) beyond. A ponderous, masonry shell, its back against the rocks sup-



Fig 4. Music Stand formerly on the Mall near the Plaza, photograph courtesy Avery Library, Columbia University; see page 122, Contemporary drawing by Lewis Miller from collection of Mrs. Ollie Rosseau, Williamsburg, Va.



Fig 5. The Terrace about 1870, engraved by G. R. Hall after a painting by G. Rosenberg (from W. C. Bryant, Picturesque America, New York, 1874).

Fig 6. Skating on the Lake in Winter, from a lithograph by John Bachmann, 1865, courtesy Museum of the City of New York. View from West Drive near Seventy-second Street, the Terrace and Conservatory Lake beyond; to the left of the lower end of the Old Reservoir, Vista Rock topped by the former timber lookout.



porting the Vine-covered Walk, replaced the delicate and imaginative Music Stand in 1923, creating a cross-axis that disturbs the direction of the Mall, pointed so carefully towards Vista Rock, the highest spot in Central Park. On the Lake below floated stately white swans and gondolas and other small boats, which at night carried tiny red and blue lights.

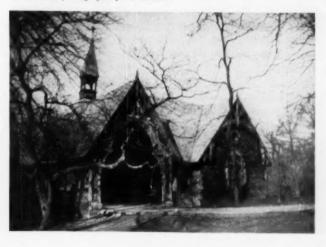
In winter, the boathouses were exchanged for structures to accommodate the crowds of skaters who flocked to the frozen lake that was illuminated by gas jets with powerful reflectors (Fig. 6). The hoisting of a red ball on the Arsenal indicated that the ice was strong enough for skating, and little white flags on which were printed a similar device were affixed to the trolleys shuttling to and fro between the Park and the downtown part of the City.

To the west of the Mall is a lawn of fifteen acres, called the Green, with a playground below. The Spa, or Mineral Spring, on the west side opposite Seventieth Street, is a symmetrical, colorful, polygonal building having projecting wings, a complex hipped roof with lacy wroughtiron cresting, deep bracketed eaves and cusped oriental arches recalling the Music Stand. A pretty, eclectic stoneand-wood cottage, partly gothic and partly Swiss, of the type illustrated in Calvert Vaux's Villas and Cottages, was built a little west of the entrance to the Mall as a refreshment center (Fig. 7). Christened the Dairy, the building was contiguous to the South Transverse Road in order to facilitate the delivery of supplies. A short distance away was the Children's Summer House, and a little to the north the Carrousel (recently destroyed by fire), containing "a number of hobby-horses, which are made to gallop around in a circle by the turning of a crank in the center of the machine." These structures just missed by a few years being in the 1868 lithographic view (Fig. 1).

Near the southeast corner is the Pond, a little way in from Grand Army Plaza, the principal entrance to the Park. With its waterfowl and meandering outlines, the Pond is well beloved by those fortunate enough to live in the tall buildings at the eastern end of Central Park South.

The Arsenal, on Fifth Avenue facing Sixty-fourth Street, was converted into a Museum of Natural History, boasting (in 1872) "the largest and most perfect collection in the country," the nucleus of which had belonged to the Archduke Maximilian. This, in turn, was to become the basis of the archives of the present American Museum of Natural History, the first section of which was built by Vaux in 1874 on Manhattan Square, west of Central Park. The Arsenal was remodeled for the Park Department offices in 1923-24. After 1870, as now, the immediate vicinity surrounding the Arsenal formed a Zoo. Ten blocks up the Avenue was Conservatory Lake, on which children take great delight in sailing toy boats. Before Calvert Vaux built the red-brick pavilion for the Metropolitan Museum of Art during the late 1870's, its site was the location of a Deer Paddock; and a little farther north was the Maze. The Old Reservoir behind was filled in, becoming the Great Lawn, in 1933. On the heights between the Lake and former reservoir is a thirty-six acre labyrinth of wooded walks known as the Ramble. Here are to be discovered weird rock formations, babbling streams and waterfalls, rustic bridges and shelters and meandering paths that become steps chiseled into the living rock on the inclines. At the northern extremity stands the stone tower, the Belvedere,

Fig 7. The Dairy, off South Transverse Road west of South Entrance to the Mall; photograph by the author.



built in 1869—replacing a temporary wood lookout—to serve as a pump house and observatory from which the entire layout could be viewed. It is romanesque in style, a miniature version of James Renwick's Smithsonian (Fig. 8). The rock upon which it is built is the highest in the Park—the one which determined the orientation of the Mall—the Belvedere terminating the view along its axis. In 1912, the tower became the meteorological observatory of the U. S. Weather Bureau; the canopy and the high-pitched roof of the oblong turret—shown in our 1890 view—were removed, the latter being replaced by a crenelated parapet from which technical instruments project skyward.

The tree-bordered walks flanking the Avenues peripheral to Central Park, separated only by a chest-high stone wall pierced by frequent entrances, are better related to the Park itself than to the great palisades of buildings that rise beyond. Paved with hexagonal blocks spangled with sunlight, there is no better place for strolling in the City. The vistas entice one into the Park. The more important entrances are given emphasis by placing nearby stone or bronze sculptured groups, such as the Maine Monument, completed in 1912, facing Columbus Circle at the southwest angle. Unfortunately, the least said about these piecesrendered in a style of idealized realism with little sculpturesque quality-the better. One feels only nausea when confronted by such archaisms as sparsely-clad nymphs discolored by the weather, or images of the world's immortals perched on classical pedestals and serving as pigeon roosts. But as yet these are fortunately not in abundance and disfigure only a few localities. So much has Central Park to offer, that one soon forgets them.

Besides its many wonders and delights, Central Park provides a place where the city dweller can get exercise, sunshine and fresh air. "The Lung of the City," it has been indelicately called. There always have been several miles of bridle paths, large playgrounds and ball fields—and now a skating rink—for the more energetic, distributed throughout its vast expanse, as well as pleasant lawns for those who wish merely to relax. Each area seems separated, and yet each flows into the next, so that one is made conscious of the complete and complex surge of life, well ordered, yet integrated, one activity with another.

If one thinks of it at all-so neatly is it conceivedone is astonished with what seeming casualness the arrangement of gardens, pools, roads, paths, lawns and buildings is tucked into the landscape. Everything appears dependent upon the natural conditions of the site, the design having evolved quietly from the existing topography. The designer only aided nature to express itself in serving human needs. Frederick Law Olmsted was the master of outdoor composition. With a few deft maneuvers, he could transform a commonplace view into an enchanting picture. His method was to establish an underpainting of existing rocks and hills, laying over these a tone of living verdure, strengthening his outlines with curving walks and drives, and adding final interest in a few well-chosen, well-placed architectural motives for the eye to rest upon. In his landscapes, there is no monotony. One crosses a small rustic bridge to the wilds of the Ramble, or the neo-gothic Bow Bridge (northwest of the Terrace) to wander along the shore line of the Lake. From the Oriental Music Stand, one looked past the

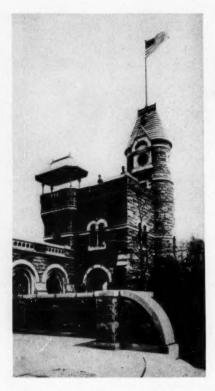


Fig 8.
The Belvedere in 1890,
photograph courtesy
New York
Public Library.

majestic baroque-manner Plaza towards the picturesque tower of the romanesque Belvedere rising above the tangled mass of treetops on the hills beyond the placid water.

Our tendency, nowadays, is to take Central Park for granted. Landscape gardening is one of the most ephemeral of the arts. It is ever changing with the seasons. It may be wrecked by storm; or it may dry up with drought or drown under torrential downpours. Also, it may be badly abused by people who fail to appreciate or understand it. No less eminent a critic and art historian than Professor Charles Eliot Norton of Harvard University spoke of the designer of Central Park as "the greatest artist that America has yet produced." We reflect that Olmsted lived during an era when art was at a confused low ebb, and give him the more credit for the compliment.

Frederick Law Olmsted worked on upwards of eighty public recreation grounds-outstanding among which were Mount Royal, Montreal; Franklin and Back Bay Parks, Boston; Morningside Park, New York City; and parks at Brooklyn, Chicago, Detroit, Washington, Baltimore, Albany, Hartford and Niagara Falls-in addition to many private undertakings. He devoted a good portion of his time, energy and talents for over twenty years to the creation of his masterpiece, and that is Central Park. Forty-eight years have elapsed since his demise, and to many persons it seems lack of gratitude that the designer has never been memorialized within the precinct of his greatest work. Most certainly he should not be forgotten. As the older buildings bear the stamp of Calvert Vaux, so the Park as a whole bespeaks the handiwork of Frederick Law Olmsted; and the just and fitting tribute to the genius that made these possible is that they be preserved and maintained as a valuable artistic and historical monument, a democratic living memorial that shall continue to give pleasure and benefit to all well-mannered people entering its precincts.

Pablo Picasso, Gertrude Stein, 1906, oli, 39½ x 32½", Metropolitan Museum of Art.

FREDERICK S. WIGHT

The Eclipse of the Portrait



EVERYONE has, of course, remarked on the disappearance of the portrait in our time, and at first sight the fading out of the interest in representation would seem to be a sufficient cause. But this is not quite satisfactory. By and large the portrait departed while representation lingered. The still-life has persisted recognizably all through the epoch. And if the painter treated man himself, he transformed him into a fragment of still-life, the individual atrophying into type. By contrast, there are canvases in the expressionist tradition in which the painter has presented personalityoften his own-as something as august as a religious symbol, as if he were awe-struck that it should make itself visible to him. It is as though a certain conception of personality withdrew around the turn of the century-personality as a unit, distinct and indivisible-and the portrait as we knew it withdrew along with this conception.

Is it not the distinction of our time that our former literal view of ourselves has been seen as inadequate—that for the artist and scientist, as well as the philosopher, there was more to man than met the eye? Looking back, Freud, Joyce and Picasso—to name only the great, with the mark of the age upon them—all appear to have had a common endeavor, the taking apart of the personality in all its complexity. The personality now becomes multiple, a plural noun like army, orchestra or cast. We have stepped through the eye into a universe vast as the one outside. All is now

portrait, so expanded that it has become unrecognizable—the portrait of the age. By contrast, glance back at the nine-teenth century, an age of faces, heads, biographies, packed companionably together like books on a shelf. But modern man is more and less. Because he is everything, he has grown invisible. Instead of individuals it is concepts, themes, doctrines, which stand out. They are superstructures based on impulses, on shared fragments of personality. It is of course this fragmentation which has been both the result and the means of exploration, which delights the modern mind, invites restlessness, and for the painter often robs his canvases of finality. But finality, like monumentality, weighs upon us like a tombstone. It is uneasy equilibrium which we desire.

One could point to Picasso's Gertrude Stein as the dramatization of this turn in history; the canvas might well be labeled the first and last great portrait of the twentieth century. Picasso seems to see his subject as a forbidding mask. One feels the frustration with which he concludes his portrait. She has stood the siege; she has managed to withhold the personality he meant to penetrate. If he has succeeded, it was because he had the mask at hand as a new and living symbol of the elemental things within us. It is understandable that from this moment he attacked the human citadel by different means altogether, and from now on one feels that his portraits are elegiac gestures made in moments of relaxation.



Oskar Kokoschka, Self-Portrait, 1913, eil, 321/8 x 191/2", Museum of Modern Art, courtesy Buchholz Gallery.

There are, however, other exceptional portraits glimmering out through the last fifty years. One thinks of works by Kokoschka, Beckmann, Soutine, and Franklin Watkins among Americans. If these portraits lag, it is solely in that they still show the face as a clue to the mind. They keep pace with the inward trend, which one takes to be a search for a philosophy, an echoing of discovery, an investigation all directed to one end: the deeper grasp of the nature of man. Note at once how many of the painters of these canvases are addicted to the self-portrait or are at their best when confronting themselves. Now self-portraits have a special position on the threshold of subjective art; if they are objective in appearance, the artist has only come out of himself to glance off the mirror and return. Again, leaving aside Bérard, these painters all belong to the expressionist family, and the involution and contortion of style and handling suggest an effort to take the deeper personality by surprise. Something sudden or painful seems to be happening, as though the painter were a hunter, and personality a rare species of elusive game.

Bérard's position is at once more interesting, more civilized and less dramatic. He is not a hunter but a cultiva-

tor of personality. He cultivates it in a hothouse. His examples are exotic, and for him, too, personality is something rare.

In Watkins' painting the expressionist-anguished forms are washed in a silky twilight, an atmosphere of translucent thought, and one is reminded of the writings of Hawthorne. The questing mood suggests that some goal still remains unattained.

The striving in all these paintings is somehow related to their rarity. The artist appears to be struggling with a tour-de-force which the times impose upon him. The painting is loose-knit. The artist has been impelled to open the package and then re-wrap it hastily and furtively, as best he could. There is the frustration of seeing too little and the embarrassment of seeing too much. Needing to explore personality, these painters are set apart by their instinctive feeling that personality should be kept assembled and intact.

Perhaps this instinctive feeling tells us something of the future as well as of the past. Surely fragmentation leads on to integration, both in the work of the individual artist and in the larger progress of a century. An artist is not merely an explorer; he is a constructor, a maker, a seeker of unity.

Christian Bérard, Jean Desbordes, 1931, oil, $45\sqrt[3]{4} \times 29\sqrt[3]{2}$, collection Paul Beglarian, Paris, courtesy Institute of Contemporary Art, Boston.



Franklin Watkins, Head of Boris Blai, c. 1935, oil, 31 x 29", Phillips Gallery, Washington.



He relates—in a word, he *composes*. As a sign that this stage had been reached, one should, at a hazard, expect to see the image of the whole personality reappearing.

In general terms, we have watched an art of construction give way to an art of symbol. For a long while the painter built in the direction of architecture on a scaffolding of concepts; he seems now to be building towards literature on the web of experience. The painter in the new symbolic field—the world of a Gottlieb or a Baziotes or a Stamos, to bring it up to date—has the problem of imagery losing its mystery and wasting into recognition through exposure. Symbols demand to be read, and once legible in the clear they must compete with the clear sight of the objects for which they stand.

The painters who have nothing to fear from such competition are the poets among painters, those who are masters of condensation. For symbols stand not merely for objects but for series of objects: they are summations. And is there not a basic difference between summation and type?—the former achieved through a richening process of addition, the latter by paring away. Symbols of summation come to us with variety of experience intact, laden with time. This is their strength. But if the new abstract painter is describing experience, he is (one whispers) a literary painter. Leaving that aside in all haste, one would like to stress how much synthesis has already been obtained in a painter's terms,

to what an extent the artist is now at home in his twentieth-century self.

The choice (fashion apart) between painting in abstract or literal terms would then seem to be a temperamental one, like the choice between writing poetry or prose. But perhaps the choice is not so clear cut, for there are objects which themselves are summations of more than one event, which have experience stamped upon them, quintessential symbols of whatever new has been learned of personality. These objects are faces. For personality has a visible existence; once understood, it is suddenly discovered to be in sight. In its pliable fabric time is enfolded, not in the abstract but palpable, and change not in idea but in experience. So seen, personality is the thing which lives—the only thing which does. And it is the only thing which vanishes utterly, at least to sight. It is therefore the only thing tragic.

One can imagine a painter at an impasse between experience he wishes to record and images which reveal themselves as neither more nor less than the counters of his daily economy—one can imagine him catching sight of himself in the glass, or simply becoming aware of himself, and taking a canvas and doing something about it. For one is conscious of a long—if justified—postponement. The painter has moved or searched heaven and earth to give us twentieth-century man's universe; but with a few exceptions, he has still to give us twentieth-century man.

Charlotte Weidler

Art in Western Germany

Today



Carl Hofer, Figure, 1950, oil.

When the Carnegie Institute of Pittsburgh decided to resume its International Exhibitions with the autumn of 1950, the director, Homer Saint-Gaudens, and I began wondering about art in Western Germany. As a result, I shortly afterwards set out on my first trip to Germany since 1939.

What situation would I find? I remembered having heard an American journalist say, "It will take more than twenty-five years before German artists will again produce anything worthwhile." Who and what had survived? I wondered what had become of the painters of the Brücke group of expressionists, or of the younger artists—those gifted students of the famous Bauhaus masters Klee, Kandinsky, Feininger and Schlemmer. Had they forgotten the teachings of the great days of the past, or could they have lived up to our expectations? Soon I was to get positive answers to these questions.

Not long after the cessation of hostilities, the Germans sought an escape from the miseries of daily life through art. Although no museums were yet in existence, art exhibitions were organized everywhere. These exhibits

were arranged with the assistance of the occupying powers in scattered areas: in the American Zone, help was given through the Collecting Point in Munich, where Mr. Stefen Munsing did wonders, the Collecting Point in Wiesbaden, under the direction of Theodore A. Heinrich, and lastly the Cultural Affairs Division of Hicoc. Similar activities were arranged under the auspices of the British and French authorities in their respective zones. The French were the first to bring to an enthusiastic public in Germany an exhibition of French art, including works by Braque, Picasso, Miro and others.

The first exhibitions of German art turned out to be a great surprise. Hundreds of new names and new talents hitherto unheard of emerged from obscurity. These early exhibitions proved immediately that creative forces had survived to a far greater degree than had been expected. Critics realized that young artists existed who had developed new ideas out of the teachings of Kandinsky, Klee, Feininger, Picasso, Braque and others.

Whoever wishes to know about art in Germany must travel. There is no single center of art that represents what Paris is to France. Owing to war conditions, artists are scattered all over the country. Different art centers have arisen at Berlin, Munich, Hannover, Stuttgart and Düsseldorf, as well as in Cologne and the Ruhr. Expressionism and abstraction are the dominant tendencies. Academic art has completely disappeared, and no one is interested in seeing the kind of art that Hitler liked.

In Berlin, I was happy to see once more dear friends like Carl Hofer, Karl Schmidt-Rottluff, Renée Sintenis and Max Pechstein. Although they are now all about seventy years old, their work has remained as youthful as ever. Theodor Werner, the eminent abstract artist, Max Kaus and Alexander Camaro remained in Berlin. Quite new to me was the work of many whom I had known in their student days, and whose style-in spite of their isolation from the outside world-had developed into a clear statement in terms of the principles of contemporary art. Among these are the members of Berlin's so-called "Bauhaus Group"-Fritz Kuhr, Hans Jaenisch, Hinnerk and Lou Scheper, and Hans Thiemann. I was introduced to the work of the two surrealists, Hans Kuhn and Werner Trökes, and met the much discussed group of abstract sculptors, Hans Hartung, Bernard Heiliger and Hans Uhlmann. It was hard to believe that, in spite of Hitler's threats, this important movement had grown in secrecy. Although after 1945 these artists were of course free to express themselves fully, they could never have done so had they not previously known the meaning of freedom.

After years of experimenting, Carl Hofer has found his new style. No other German artist has changed so much. No longer does Hofer paint the popular, lyrical figures or landscapes of Lugano in soft blue tones. Years of loneliness, tragedy and bitter experience have altered this artist's outlook and given him new insight. He now creates human beings born of tragic fate and destruction; it is the spiritual struggle of mankind today that Hofer portrays in his recent oils. Explaining his principles to me, he said simply, "An artist's duty is to write a clear statement of his own period." Since he considers man to be the center of the universe, he concentrates on the human figure. But these figures are by



Karl Schmidt-Rottluff, Still-Life by Open Window, 1950, oil.

no means naturalistic or anatomical in any sense of the word. They have a different significance, emphatically revealing his own concept: the outer world has changed, and with it man's own outlook. The challenging thoughts of Hofer's figures are born of the unpleasant world of today. Refusing to live in this world, these introspective figures have crossed the Styx to dwell beyond it in another eternal, philosophical universe.

It required time and effort for Hofer to succeed in finding his personal means of expression, combining the elements of modern art with his own conception of the human figure. At the same time, his colors became stronger too. His well-known blue remains, but he has given it a new meaning. It is no longer lyrical but has grown stronger and cooler. He often uses a striking red and with more vigorous effect than ever before.

From a psychological point of view, the recent work of Carl Hofer expresses more clearly than that of any other artist the far-reaching changes in the world today and the impact of tragedy on the human being. Seeking no escape or compromise, Hofer sticks to the facts and dares to tell the truth. For this reason, many who remember his former idyllic paintings are greatly shocked by his recent work. Time may prove him right; perhaps his art is prophetic of the world of tomorrow.

Karl Schmidt-Rottluff is still the powerful, outstanding figure that he always was. He is rightfully considered a peer among the masters of contemporary German art. He has never in his life compromised in any respect; his work is of flawless integrity and character. His brush reveals an unending, hard struggle for the existence of modern art. All the overwhelming enthusiasm and strength of his early days appear to have returned to him with even greater force at seventy. He commands the same architectural discipline in constructing his landscapes, his figures or his still-lifes. His colors have become even more dramatic re-

cently-vivid yellows, new orange tones and violent reds are used to construct his forms.

I asked Schmidt-Rottluff about his experience in teaching art at the West Berlin Academy, feeling sure that he could give a good picture of the tendencies now dominating the younger artists. His answer, entirely unexpected, came as a shock to me, but I soon found out that the same conditions exist elsewhere. The students are eager to learn, enthusiastic, hard working and poor. "But," Schmidt-Rottluff asked, "how can I teach them to observe certain principles of the old masters if they have never seen any great masterpieces of the past?" Coming from another continent, I would never have imagined the existence of such a problem. This strange circumstance arises from the fact that all the museums in Germany were closed immediately after the outbreak of the war, and very little of value remained to be seen. The students of today, who were mere schoolboys at that time, went off to war, many becoming prisoners. When they finally returned, they found the museums destroyed and the art treasures off someplace in storage. Where could they see the masterpieces that had inspired our generation?-not to speak of Picasso, Braque, or any other master of the twentieth century. It is a sad fact that the younger generation, up to those twenty-six years old, is simply out of contact with everything that we once had the opportunity of seeing freely. These young students have had to start from the very bottom and turn to their own imagination. Under these circumstances, it is a miracle that art in Germany today is as provocative as it is. Assuredly it proves that the Nazis were incapable of extinguishing the spirit of free expression. We in this country can scarcely appreciate how thrilling and successful was the brief exhibition in Berlin of the hundred and fifty old masterpieces from the Kaiser-Friedrich Museum. True, the worst is now over, and conditions are becoming better daily. Today many exhibitions of wide interest are touring the country, and some of them are to be seen in Berlin.

During my visit, I gave many lectures on art. The discussions that followed were very revealing of the state of mind of Germany's youth. They are eager to overcome their ignorance of the art of the period preceding Hitler and ask questions about the *Blaue Reiter*, the *Brücke*, and the Bauhaus. The international reputation of these groups was new to them. Steadily, the question was repeated: "Please give us the titles of books on contemporary art. We want to learn. We want to study reproductions." And another question, asked all over Germany, was, "When will they send us an exhibition of American art?"

The United States Information Centers—the so-called Amerika-Häuser—are doing an efficient and wonderful job. The young people of Germany attend the programs in far greater numbers than can be realized here. They appreciate the lectures, the well-organized exhibitions, the films and, of course, the libraries. This is far more than just American propaganda; it is the most successful means we have of counteracting Russian propaganda in any cultural field.

Another of Schmidt-Rottluff's experiences should be told. New churches were being built in great numbers, and he suggested to his students that they design stained-glass windows or illustrate the great stories of the Bible for a publisher. "The Bible?" The students looked at their professor in bewilderment. "We have never read the Bible!"



Theodor Werner,
Composition in Black, Yellow and Blue,
1950, appache.

Schmidt-Rottluff could not believe his ears. His students reminded him that under the Nazi régime, the Bible was forbidden in the schools. He told them nevertheless to go ahead and read it, and to those who followed his advice, it proved a great spiritual revelation. They told him, "Knowing the Bible, we realize more than ever how far-reaching was Hitler's betrayal of youth. We understand why he kept the Bible from us, and why the Russians, too, keep it from their youth."

Among those who, while continuing in the tradition of the *Brücke* group, are increasingly influenced by the abstract tendencies of today, are Max Kaus and the talented Alexander Camaro. The former is painting in clearer colors than previously, while the gray tones of the latter have great lyrical qualities. Camaro, who studied with Otto Mueller, has in common with his late master a certain noble loneliness.

Although she had grown twelve years older and her hair had become grayer since last I saw her, Renée Sintenis had not altered otherwise. Her work still retains all its former grace and charm. A new self-portrait, expressive of her melancholy state of mind, is a fine example of her unchanged style.

As has been said, abstract art plays a leading role in German art today. Among the leading German abstractionists in Berlin is Theodor Werner, who has an international reputation and who was invited by Christian Zervos a few months ago to exhibit his work at the gallery of Cahiers d'Art in Paris. Werner lived in Paris for many years before the war and is an old friend of Picasso, Braque and the late Juan Gris. In his work, which has great mathematical and dynamic qualities, Werner follows the principle of revealing the philosophical thoughts of man the creator, as opposed to man the machine; he wants to make visible the creative processes of life in the universe. To him, abstract art represents a guarantee of the survival of mankind's liberty.

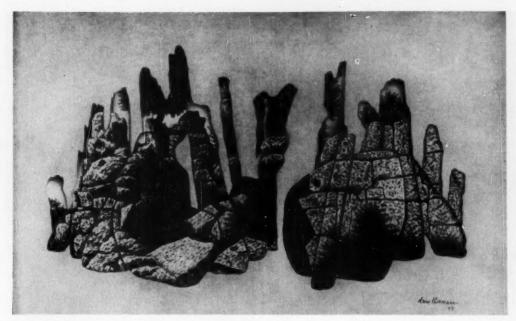
The members of the Bauhaus Group prove the validity of their masters' precepts, which were that each should develop his own personality, not by copying the work of his teachers but by "looking at the universe," as Klee constantly repeated. In doing so they have found their individual means of expression.

Fritz Kuhr comes closest to expressing Carl Hofer's ideas of creating an image of our time. He, too, suffers under the threat of absolute destruction and has made this experience the central theme of his art. His semi-abstract houses are afire, his trees are flames. Kuhr, however, does not concentrate on the human figure as Hofer does. He humanizes animals in simple abstractions; but these are not the living creatures of a Franz Marc—they are ghost-like beasts from another, distant world. His colors are a brilliant red and a sparkling yellow, often set against a dark green.

Hans Thiemann, concentrating on the object in space, has found an interesting style of his own. He uses elements which resemble the structure of stones, wood or plants of different varieties and combines them to form abstract islands floating in space.

Hans Jaenisch, too, grew up under the influence of the Bauhaus. His semi-abstract paintings in an archaic style and his beautiful color sense command wide attention. His technique is interesting: he first builds up a relief-like plaster base, on which he lightly draws his design before beginning to work with colors. Standing in front of his painting, Within the Enclave, we spoke of the relationship to the outside world of people who live among ruins. "My figures don't care about ruins; they love life. Their outlook for the future is optimistic," Jaenisch said.

I had expected to find many expressionistic or abstract works of painting or sculpture representing ruins or devastation, but I was completely wrong. Often I stood bewildered in a German city in the midst of the most fantastic ruins, facing a nightmare reality of broken steel frames



Hans Thiemann, Intervals, 1947, oil on wood.

or twisted wires, and wondered at the extent to which this surrealistic hell resembled a perfect mobile by Calder. Did this inspire German artists? No, definitely not. One of them explained this: "No, no. These ruins look fantastic, but we don't want to copy anything. I agree with you that some of these forms are unbelievable—sometimes beautiful—but we hate to look at them. We don't want any more destruction. Our view of life is a hopeful one."

In abstract sculpture, the leaders are Hans Hartung, Bernhard Heiliger and Hans Uhlmann. Like their colleagues in other countries, German abstract sculptors turn for inspiration to remote Mediterranean cultures or use Cyclopic forms as does Hartung. They do not follow Lehmbruck, who lived and died in Berlin, but (although they are reluctant to acknowledge this) they are more or less influenced by Henry Moore. Heiliger, especially, resembles Moore very closely, although with ideas of his own. One of his most interesting works is the design for a monument dedicated to the dead heroes of the Berlin airlift. He has found an interesting solution in an abstract version of a crashing airplane, its thunderlike, sharp form striking earthwards out of the sky. Although the city of Berlin plans to erect a monument to honor the dead fliers, it has not yet been decided whether this is to be a purely architectural monument or a work of sculpture.

The whole atmosphere in Berlin is essentially unromantic, realistic and reassuring. The only valid philosophy of life nowadays is to stand erect, to fight back as hard as possible when attacked, and to bring one's personal existence into harmony with constant danger. Berliners don't want to hear about war jitters; the endangered city seems much calmer than any place else.

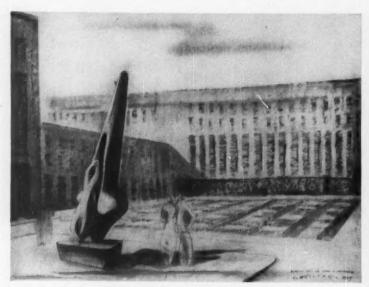
The Russians are trying hard to win Berlin's artists over to their camp. They try to bribe them with fantastic offers, make unlimited promises and finally threaten them and their families. They invariably receive an icy refusal. Berlin's artists are realistic; they cannot be bought. Although poor, often in debt, they refuse to accept promises of

financial assistance from Communists. They have no illusions; they know their destiny. They are aware of the Soviet hatred of modern art.

To encourage artists and to counteract Russian propaganda, the city of Berlin has set aside certain funds to be used yearly. The municipality is poor, the industrialists have left the city, and few private sales are made. Last year the prize winners selected were Jaenisch, Thiemann, Uhlmann, Hartung and Trökes—a good choice.

Hans Jaenisch, Within the Enclave, 1950, mixed technique.





Bernhard Heiliger, Sketch for Airlift Monument, 1949, charcoal drawing, in the exhibition, "Contemporary Berlin Artists."



Werner Scholz, King Solomon, 1949, oil.

Americans in Berlin have taken a great interest in modern art. A close friendship between American officials and German artists has grown up as a result. Dr. Beryl McCloskey organized the first group, "Prologue," in her home; then Mrs. Aline McKnight took over, and she too does an excellent job in building international friendship through organizing exhibitions.

The offer of The American Federation of Arts to assist Hicoc in bringing to the United States an exhibition of "Contemporary Berlin Artists" was accepted enthusiastically by the State Department and by the artists them selves. Sixty works of twenty-five artists (including Carl Hofer's Houses, 1950, reproduced on the cover) have been selected, and are now being shown in different art centers throughout the United States. This evidence of American-German friendship and the opportunity for German artists to exhibit in this country are of tremendous value in counteracting Russian propaganda.

Let us turn from Berlin to other West German centers. Werner Scholz has moved to the Tyrolean mountains. His recent work, brilliant in color, concentrates on abstract renderings of biblical subjects.

Among the members of the *Brücke* who are still alive are Erich Heckel, who teaches art at the Academy in Karlsruhe, and Emil Nolde, who lives near the Danish border. A visit to the latter proved very exciting. No one would guess from his aggressive paintings that this artist is now eighty-six years old. His colors are full of fire, as rich in tonality as ever. His subjects are biblical figures of oriental inspiration, landscapes and flowers. Many young artists turn to him for advice, which he gives freely, and whether they are expressionists or abstractionists, he is able to make a penetrating answer.

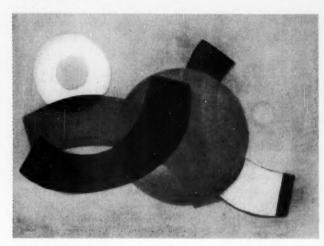
In the evening, Nolde showed me something that represented cherished memories. They were small, finely executed watercolors of postcard size, beautiful in their subjects, forms and richness of color. These he called his "unpainted pictures." While working on them, he had in mind large-scale paintings. When ousted by the Nazis as a "degenerate" artist, he was threatened with punishment if he were to be caught painting again. Friends came to his aid and invited him to use their unoccupied maid's room, where he was able to work in safety. In this tiny room Nolde had an old desk with a secret drawer, where he hid his work whenever a ring at the front doorbell made him nervous—as it did everyone in those days.

Whoever finds himself in Munich in the summertime will surely pay a visit to the great Munich art exhibitions. There are more survivals of naturalistic art in that city than in any other, but this is of minor consequence. What the dealers show, what collectors and museums buy, and what the leading magazines reproduce is very different. In art circles *modern* art is discussed; in Munich, as elsewhere, abstract art has its well-deserved place.

In Munich live Edgar Ende, the surrealist, Werner Gilles, Fritz Winter, the sculptor Stangl and others. The young abstract artists are organized in the "Zen 49" group. In Werner Gilles' studio was a very interesting conception of the ancient story of Orpheus. Just as the French poet Anouilh created his Antigone of the twentieth century, so Gilles' *Orpheus* was born of today's art principles.

Gilles had a fascinating story to tell about the difficulties of working in recent years. In 1945-46 he was unable to find any materials that he could use for lithographs or engravings, let alone watercolors, oils or brushes. One Sunday morning he was surprised to see some posters announcing a football game. Thinking that where there were posters there must be a printer lucky enough to get materials, he asked the printer's name and address. Fortunately this small suburban printing establishment proved to be in good working order. Gilles and the printer made a deal: the printer let Gilles use his precious lithographic stone (he had only one!) from Monday through Thursday each week; every Thursday night the stone was cleaned, its surface

smoothed, and the printer went into action designing his posters for boxing matches or football games. In the few days at his disposal, Gilles could draw on the stone whatever he had imagined from Friday to Sunday; he was so full of ideas that he could hardly wait for Monday morning to come. Since paper was just as scarce as time, the artist could print only a few copies of his lithographs, which were an immediate success and sold quickly. Today they are already rare and hard to find.



Fritz Winter, Balance, 1949, oil.

In Munich I also inquired about Fritz Winter, whose name I remembered from the happy days when he was at the Bauhaus. I recalled that Klee, Kandinsky and Schlemmer had spoken highly of his talents, but of course I knew nothing of his recent work. Fortunately he has fulfilled the hopes of his former friends. In 1949, he returned from a prisoner-of-war camp in Siberia. Worst of all the hardships he suffered there was the Russians' disdain for all but hard labor, and their contempt for Winter's abstract art, which, not being in line with communism, was considered "degenerate and bourgeois." Winter could only dream of painting form, space and color but managed nevertheless to find some outlet for his active, creative mind. On occasional free days, he took a stick and drew abstractions in the sand. His comrades who stood around him, knowing

nothing of abstract art, learned its principles from him; they did not forget this experience, but often write to him still to ask about his "sand paintings."

On his return to Munich, Winter immediately resumed his work. It was an outburst, an eruption. Presently his visions of forms floating in space became clearer and more musical. His art, purely abstract—or, if one prefers, non-objective—has no relation whatsoever to visual reality or actual subject matter. Forms move through space with great dramatic energy, sometimes violently attacking each other. He likes to use a cool blue or a brilliant red, but deep shiny blacks and grays always dominate his color scheme. At the 1950 Biennale in Venice he received one of the prizes—a success which he deserves.

In Stuttgart, the recent work of Willi Baumeister provided a pleasant surprise. He no longer paints geometrical, mural-like, interesting but rather cool works. His colors have become gay and vivid. His paintings, richer in imaginative form and movement than formerly, betray a different and more interesting concept of space than that found in his early work.

Stuttgart has a very active art life, manifested in lectures, exhibitions, discussions and the publication of art books. A dominant figure in that city is a psychiatrist, Dr. Hans Domnick, a collector of German and French abstract art. When I left Germany he was working on an abstract film which is to tell the history and ideas of abstract art. He hopes through this to arouse a wider interest in abstraction. He has also announced that he will award a prize of a thousand marks for a good abstract work of art.

A truly international spirit was shown last summer during the German-French Culture Week, which consisted of an art exhibition, lectures, theatrical performances and literary events. The well-organized exhibition included invited artists from both Germany and France.

The museums are being rebuilt. Germany is poor and progress is therefore slow, but enthusiasm is great. To a certain extent German museums are undergoing reorganization, and part of my work there was in helping to introduce the American idea of children's museums. This innovation has been heartily welcomed by museums and schools alike.

The story of art in Western Germany today is an optimistic one. The outlook for the future seems hopeful.



Willi Baumeister, Forms, 1946, oil.



CHARLES LESUEUR

FRENCH COMMENTATOR
ON AMERICA

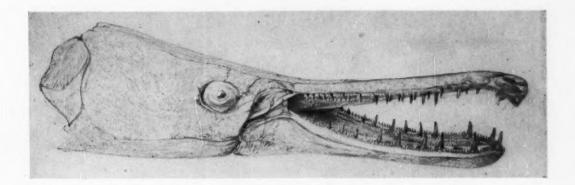
Few American nineteenth-century artistic chroniclers have been as keenly interested in the "American scene" as the Frenchman, Charles-Alexandre Lesueur (1778-1848). A noted naturalist and artist, he filled his sketchbooks not only with landscapes and genre scenes, but also with a faithful record of the flora and fauna of his time.

Lesueur first arrived in America in 1815 with the Scotch geologist, William McClure, intending to investigate the geology and geography of the northeast section of the United States. For two years, both men studied the geography and everyday life of New England, New York and the Great Lakes region. In the latter area Lesueur was particularly interested in American fish for a projected but never completed book, *Natural History of Fish in the United States*. Before voyaging to America, he had spent several years with a zoological expedition in New Zealand and Madagascar.

Fascinated by America, Lesueur decided to remain in Philadelphia, where he lived until 1826. These years were among his most productive, though he was forced to devote most of his time to earning a living by teaching drawing and painting at a girls' school in the Philadelphia suburbs. Honors were heaped upon him: he was elected a member of the American Philosophical Society, and Charles Willson Peale painted his portrait in 1819 for the Academy of Science.







Still, Lesueur was always restive and trying to save sufficient funds to travel to the new lands in the West.

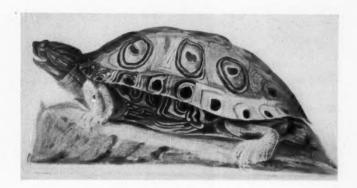
His hopes were finally realized in 1826, when Robert Owen, founder of the utopian settlement in New Harmony, Indiana, asked Lesueur to join his group. Lesueur spent his ten happiest years at New Harmony and in the Mississippi Basin region, observing and sketching the inhabitants, foliage, boats and so forth and amassing material for his prospective work on American ichthyology.

One of the most important influences in his life was his first voyage down the Mississippi River to New Orleans. He was fascinated by the river life and by the seething quality of New Orleans, to which he traveled five times, always recording his impressions in drawings.

Lesueur left America regretfully in 1835 at the request of the French Government, which felt it could no longer after twenty years continue paying him a small pension unless he returned to France.

Many of Lesueur's works are to be found in American collections, but the museum of Le Havre, his birthplace, contains approximately forty cases of his drawings and watercolors. A large proportion of these depict aspects of the United States; such an outstanding wealth of Americana is rarely to be found outside of the Western Hemisphere.





Illustrations, opposite page: Keelboat Descending the Ohio River, dated April 27th, 1826, incorporated in a sketchbook covering a trip from New Harmony to the Missouri lead mines; Girls' School at Germantown, Philadelphia, 1821-24; Steamboat Scene, executed in June, 1829, presumably during Lesueur's third trip down the Mississippi. This page: Alligator's Skull, dated April, 1837, following Lesueur's return to Le Havre and based on information from a correspondent in New Orleans (possibly after an earlier drawing); Charles Willson Peale, Charles-Alexandre Lesueur, 1819, oil, painted for Academy of Sciences, Philadelphia; Tortoise, dated 1817, watercolor, for unfinished Natural History of Fish in the United States.

LUDWIG HEYDENREICH

Art and Science



Paul Céxanne, Landscape with Trees, 1890-94, watercolor, 11½ x 18", Louise and Walter C. Arensberg collection, Philadelphia Museum of Art.

At the center of our present-day striving to preserve an integrated, synoptic view of the world and man's place in it—a struggle that at times may seem to us almost hopeless in its complexity—lies the problem of the relationship, indeed the interdependence, of art and science.

Science, as we all know, is the favorite child of our times, while art—though of vital importance within the vast realm of human concerns—is often looked upon as the problem child. And yet this should not be so. Art and science should be understood, not as antagonistic to each other, but as a complementary pair of concepts, embracing the two poles of man's creative ability: an ability that operates within the realm bounded by reason on the one side, and intuition on the other—veering now towards abstract thought, now towards sensory perception. The agent that unites these two modes is man's power of imagination. Let us always keep in mind that *imagination* is fundamentally the ability to think in *images*.

Viewed from this vantage point, man's artistic and scientific achievements have always been closely interwoven throughout history. Martin Johnson has devoted a fascinating series of essays to this theme: Art and Scientific Thought (New York, Columbia University, 1949).

Art and science—or, more specifically, the visual arts and natural science—have entered a particularly meaningful relationship on two occasions: once, at the very dawn of the modern era, around 1500 A.D., and again in the present. It is the inseparable unity of these two realms of human endeavor at these specific points that I shall discuss here.

Leonardo da Vinci, Landscape with a Storm in the Alps, c. 1503, Royal Library, Windsor (from Popham, Drawings of Leonardo, New York, 1945).



In the fifteenth century, this union was produced by the discovery of the visible world, which, leading to the birth of experimental science, marked the boundary between medieval and modern thinking. The first major results of the union appear in the first half of the sixteenth century. The common aim of art and science at that time was to gain an objective, precise knowledge of nature, of "things as they really are." For the visual artist, this meant the problem of finding a method for the optically correct rendering of visible phenomena. Through this search, he participated directly in the efforts of the scientist, yet at the same time he brought about a most far-reaching transformation of his own expressive means.

At this stage, which we might call that of the pictorial *documentation* of observed data, the fine arts developed three new and essential faculties:

First, the ability to represent the world of phenomena in accordance with a standard of objective correctness provided by mathematical perspective, complemented by a new understanding of vision as a physiological process. This method made it possible not only to show the various objects as they are perceived by the individual, but beyond that to visualize such things as geographical maps, for instance, which after all are intellectually constructed realities.

Second, the ability to render, not only the correct outer shape of things, but also their functional aspects; i.e., to visualize those invisible forces that are echoed by the shapes of things. Such is the organic relationship of a piece of drapery to the moving body beneath, or the dynamics of a flowing stream of water. It is this second ability that makes the difference between a dead, mechanically correct transcript of reality and a true "image" infused with the spirit of life itself.

Third, the ability to discover, beyond the limits of form and function, the meaning and value of the phenomena of nature—that is, their *qualities*—which lie outside the quantitative realm of the sciences. The junction of these two, qualities and quantities, may be seen in the *harmonic structure* of each and every thing in nature, reflecting its particular laws of organization. Science, it is true, recognizes this harmony, but in a purely quantitative sense; while art is concerned with its qualitative, its expressive aspects. In art, in other words, truth and beauty, rational and emotional values, coincide.

In the sixteenth century, more than at any other time, the visual arts were at the service of science, and science derived great and immediate benefits from this service. The sixteenth century brought the birth, and in a way the full development, of scientific illustration in the modern sense; the image was no longer a secondary addition to the written word but became a primary source and transmitter of scientific knowledge. Beginning with the drawings of Leonardo and Dürer, this development led to the famous anatomical illustrations of Vesalius, to Gesner's great zoological work, and beyond that to the illustrated encyclopedia of Diderot and similar monuments of knowledge. Throughout this period, then, art and science maintained a close and mutually beneficial interdependence, the artist contributing his unique gift for grasping and visualizing directly and intuitively what the scientist achieved by way of rational analysis. In this process the artist penetrates into the farthest reaches of what is visible; for instance, Leonardo da Vinci, in order to show mechanical forces embodied in moving matter, developed a special kind of linear stylization for displaying these energies—in themselves invisible. His graphic method frequently attains, or even surpasses, the effectiveness of the most recent photographic techniques of recording. Some contemporary handbooks of anatomy still reproduce certain of Leonardo's anatomical drawings in preference to photographs. And this is because these drawings, quite apart from their "correctness" of detail, convey so effectively the qualities of living structure.

The problem of how to visualize the invisible brings us at once to the problems of our own day. During the last hundred years, the natural sciences have increasingly become an area distinct from the total field of human knowledge. This in turn has brought about a tendency to separate abstract thinking from sensuous experience, thereby accentuating the growing discrepancy between our objective, rational concept and our subjective, visual concept of the world in which we live. The physicist Heisenberg once pointed out this discrepancy in an illuminating discussion of Newton's and Goethe's color theories in the light of modern physics. He spoke of the existence of two "layers of reality" in our concept of the world. There is, on the one hand, that layer of reality which might be called the objective; it is both constant and impersonal; we are forced to acknowledge it by our own powers of observation. To describe this reality is the task, and the only task, of science. Science achieves this aim not merely by constantly refining

Leonardo da Vinci, Anatomical Studies of a Man's Neck and Shoulders, 1510, Royal Library, Windsor (from Popham, Drawings of Leonardo, New York, 1945).





Hans Haffenrichter, Cell Structure of Graphite, 1948, oil and tempera.



Franz Marc, Fighting Forms, 1915, oil, 35 3/4 x 51 3/4", Pinakothek, Munich.

our ability to observe, but also by purging the data provided by our senses of every possible trace of the subjective, until in the end science enters into most remote reaches of this objective reality, which are no longer directly accessible to our senses. In contrast with this objective reality, operating by fixed laws, there is the other layer, that of subjective reality. It is the reality of our sensory perception. This reality exists just as actually as does the other, but it is more personal-full of qualities which are not evaluated in the same way by all. Its constituent parts include not only the data of our senses but also the whole realm of individual experience in the emotional sphere. Experiences, after all, are something to be evaluated, whereas experiments are conducted so that the results can be measured. In every scientific experiment, our senses serve merely as controlled, imperfect tools, while true experience is always based on the immediacy and fullness of our sensory perceptions.

How far the scientist's objective reality has become removed from the world of our direct experience is strikingly demonstrated by the fact that science has now reached a stage where it can regard *matter* and *energy* as interchangeable. In this discovery of invisible forces, we find ourselves in a realm of immaterial abstract functions, completely divorced from the world of material things and images.

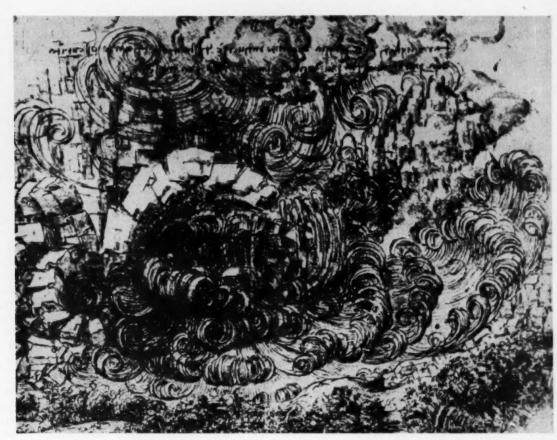
Something of this modern power of abstract thought, so far removed from concrete experience, has entered into the field of art as well, but of course in a way that is compatible with the essential nature of the artist's task.

Thus we have reached the second meeting point of art and science, where the two seem once more to enter into a meaningful relationship, although on terms rather different from those in the sixteenth century. The impressionist painter of the nineteenth century who concerned himself with problems of light and color, independent of objective standards of "correctness," had already begun to aim at the discovery of formal laws and harmonious functions far beyond that simple "reality that meets the eye."

He had begun to perceive phenomena on a more abstract plane. Thus Cézanne could say: "Nature is not to be found on the surface of things, but in the core of things; colors are the expression of this deep nature on the surface; they arise from the very roots of the natural universe." Nevertheless, Cézanne's art is always based on direct sensory experience, for there could be no art without such direct sensory experience. This is invariably true, even of the most non-objective works of art.

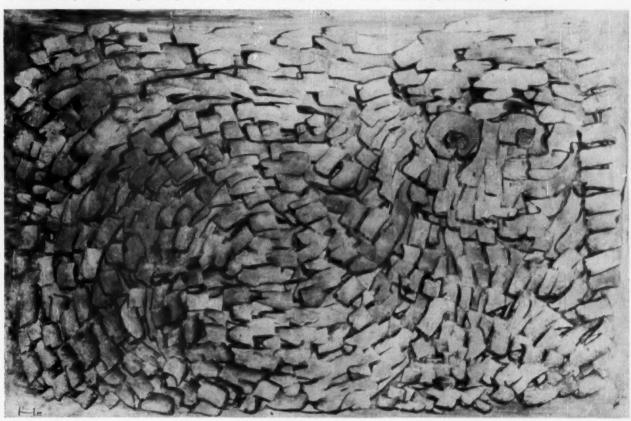
In view of all this, there is special significance in the fact that the modern artist's creative gift, modified by his new receptivity to abstract phenomena, has once more entered into a close, reciprocal relation with natural science. Once again the artist serves science as an illustrator, but this time with the purpose, not of exploring the visible world, but of finding visual equivalents for scientific constructions—such as the structure of the atom—otherwise completely outside the field of sensory experience. We may call this, as distinct from documentation, the pictorial interpretation of observed data.

A few years ago, the German physicist, Heisenberg, together with a group of his scientific co-workers, decided to collaborate with a modern painter, Hans Haffenrichter, in producing pictorial interpretations of such phenomena in the atomic world as the cell structure of graphite or the lattice patterns of quartz. An account of this by Max Bill, "Graphic Art in the Atom World," appeared in the January, 1948, issue of Graphis. Interestingly enough, the scientists did not need these images in order to further their own research, which continues to depend entirely on mathematical formulae and equations. Still, they must have found these non-visible structures a challenge to man's imagination and must have felt a need to "act out" these formulae in visible form; and for this they depended on the intuition of the modern artist. Needless to say, these "atomic illustrations" are of only limited importance as works of art. What is important, however, is the impulse, even on the



Leonardo da Vinci, The Deluge Formalized, c. 1514, Royal Library, Windsor (from Clark, Leonardo da Vinci, New York, 1939).





APRIL, 1951

part of the scientist, to cast abstract concepts into tangible shapes, to translate a part of his "objective" reality into a subjective one, directly accessible to our senses. Here we note that the scientist himself unifies the two layers of reality and feels the necessity of seeing visualized not only the quantitative, but also the qualitative, the *harmonious* aspects of atomic structures. To achieve this transfer from one layer of reality to the other takes a co-operative effort, uniting the separate powers of imagination that reside in the scientist and in the artist.

This, it seems to me, is rather symptomatic. It can, therefore, open the way for an understanding of certain tendencies in modern art, in so far as these aim at the visualization of phenomena *abstracted* from nature.

I do not wish to be misunderstood; I am not attempting to construct a superficial parallel between abstract thought in science and in art. But I would like to point out that, in contrast to the sixteenth century, when the discovery of the *visible* world was the common problem of art and science, today, in their discovery of *invisible* functions in nature, art and science once again proceed—each in its own way—naturally and logically.

If the modern artist tries to express by means of images the "functions" beneath the surface of appearances, he does not seek mathematical abstractions, but the expression of the formative powers which mold the face of reality. He wishes to bring these powers into the realm of our

sensory perception.

This endeavor means a very great extension of the artist's task, but it is in itself consequential and natural. The picture becomes a document of our power of imagination in a completely new sense. And yet even this new significance is based on the primary, fundamental aim of all art. Through Cézanne, who said that nature is not to be found on the surface of things, but in their core, we more readily understand Paul Klee, to whom we owe some of the most subtle verbal definitions of the aim of the modern artists: "The main thing is always the *law* according to which nature functions, and as it reveals itself to artists in any given instance" (quoted by W. Haftmann,

Paul Klee, Munich, 1950, p. 27). That is not so remote from Leonardo, who said in his Treatise on Painting, "The painter must act as an interpreter between nature and art, explaining through the latter the causes and effects of the former, as they obey nature's proper law." And Paul Klee admonishes his student: "Always follow the natural paths of creation, the growth of forms and their functions. That is the best way to learn. Perhaps you may through nature arrive at the point where you can create on your own. Then one day you yourself will be a part of nature; you will be able to create as she does" (quoted by Haftmann, p. 93). Here, we realize, arises again the old concept of the painter as the alter deus, whose creative power makes him resemble the divine. Leonardo said, "The painter should cultivate solitude, he should ponder and deliberate on the things he sees in order to select the best parts of them. He should do this as a mirror does, which takes on as many colors as there are in the objects which it reflects. And if he does that, he will be like a second nature."

Art has always tried to explain and interpret the impressions and experiences—both material and spiritual—of human life. In this endeavor, art is fundamentally close to the aim of science. In the one as in the other, *impulse* operates, it is the power of *imagination* that leads to works of both science and art. Klee's *Panicky Sweet Morning*, in its interpretation of elementary forces of nature, is essentially not much more of an "abstraction" than a drawing of the deluge by Leonardo, which also tries to explain the cosmic energies that form the shape of nature and that are to be *seen* only in the matter—clouds, rain, rocks—moved by them.

The natural relationship between "objective" and "subjective" experience is reflected in art in a very significant way. Throughout history, art has always represented the bridge between the two spheres of intellectual and emotional understanding, between reason and intuition, between analysis and synthesis: in the realms of magic, of religion and metaphysics, and of scientific thought. And this, it seems to me, is the inseparable relationship and continuous interdependence of art and science.



Leonardo da Vinci, A Cloudburst, c. 1513, Royal Library, Windser (from Popham, Drawings of Leonardo, New York, 1945).

Peter Blanc:

The and the tom



Traces of electrons
photo-electrically
ejected from
molecules of air
by X-rays
(from G. Almaldi,
Misteri della Materia,
Milan, 1950).



Jackson Pollock,
No. 10, 1950,
oil, 65 x 36½",
collection
Mrs. Richard Deutsch,
Greenwich, Conn.,
courtesy
Betty Parsons Gallery,
hotograph Hans Namuth.

It is a commonplace of contemporary thought that the period of the last hundred years has been pre-eminently an age of science. All fields of intellectual endeavor exhibit signs of the infiltration and influence of the scientific attitude, and all display scars, indeed open and still bleeding wounds, inflicted by the penetration of the new and shocking discoveries, theories and conceptions of modern science. The plastic arts have been no exception, and critics and art historians are at one in perceiving a connection between science and modern art from the impressionists to date. But the particular aspects of scientific thought which appear in modern painting and sculpture have not been analyzed. It is the purpose of this article to establish that the connection between modern science and modern art lies predominantly in that field of scientific thought which is the most disturbing, and by the same token the most enlightening, to the philosophical thinker: the field of research into the basic composition of the universe and all that it contains-the theory of atomic matter.

In the early years of the nineteenth century the scientific center of the world was Paris. In France during the eighteenth century science had permeated literature—Fontenelle, Voltaire, Buffon—and this connection between

science and literature was maintained during the early nineteenth century largely owing to the constitution of the Académie des Sciences as part of the Institut. In Germany, on the other hand, science was merely the handmaiden of philosophy, and science courses at the universities were taught on the basis of doubtful philosophic theories. The situation in Germany was more typical of the period than was that in France, for on the whole the scientists were then working in obscurity in the laboratory, conducting experiments and accumulating the mass of data which in the main was not to be synthesized into general principles and disclosed to the public till the last half of the century.

But at the mid-century the situation changed. The scientists came out of the laboratory and took to their writing desks. The period from 1850 to 1870 saw few new discoveries but witnessed the development and clarification of general laws and principles drawn from the data accumulated during the preceding fifty years. The principles of the conservation of matter, the law of the dissipation of energy, Dalton's atomic theory, the theory of evolution, all achieved acceptance and popularization as scientific books poured from the presses. These new and revolutionary concepts seized the imagination of the intellectuals,

and the new gospel of science spread throughout Europe, breaking down the old intellectual isolation of the nations.

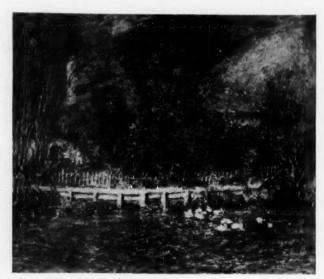
The new spirit manifested itself immediately in the form of "realism." In literature, the scientific method of documentation and accumulation of evidence found its reflection in the works of Zola and the Goncourts and in such books as Flaubert's *Madame Bovary* (1856). Much the same dispassionate statement of contemporary facts appears in the painting of Courbet, while the sociological intention of these writers is paralleled by the more dramatic works of Daumier. But these artists demonstrate merely the turning point of artistic expression. Their innovations were in subject matter rather than in the structural elements of composition or the manner of laying the paint on the canvas. The impact of scientific developments in these respects first appears in the work of the impressionists.

One of the main characteristics of impressionism is the laying on of the paint in small, clearly visible blobs, dots or curlicues throughout the entire surface of the canvas. It is this continuous subdivision of the canvas surface into innumerable tiny dots and particles of paint, more than any other feature, that distinguishes impressionist painting from previous styles, and it is this characteristic which most closely concerns us.

One of the few novel scientific theories which had been voiced during the first half of the nineteenth century was the theory that all forms of matter-gaseous, liquid or solid-are composed of innumerable tiny particles of indestructible, solid, concrete matter. In gases, these particles were conceived as loosely associated, much like a swarm of bees, capable of independent movement, collision and flight; in liquids they were more closely united, acting much in the manner of grain pouring down a chute; in solids they were linked together in the manner of a crowd of people holding hands, capable of jostling about to some degree but incapable of seriously altering their relative positions. Although numerous scientists of differing nationalities contributed to this conception, the Englishman, John Dalton, is generally acknowledged as the father of the theory. In his New System of Chemical Philosophy (1808), Dalton first advanced his theory, saying:

There are three distinctions in the kinds of bodies, or three states, which have more specifically claimed the attention of philosophical chemists, namely, those which are marked by the term elastic fluids, liquids, and solids. A very famous instance is exhibited to us in water, of a body, which, in certain circumstances, is capable of assuming all three states. In steam we recognize a perfectly elastic fluid, in water a perfect liquid, and in ice a complete solid. These observations have tacitly led us to the conclusion which seems universally adopted, that all bodies of sensible magnitude, whether liquid or solid, are constituted of a vast number of extremely small particles, or atoms of matter bound together by a force of attraction, which is more or less powerful according to circumstances. . . .

Dalton was somewhat overoptimistic about the universal adoption of his atomic theory of matter. The lack of distinction between the *chemical atom* (the smallest particle of matter which can enter into combination) and the *physical molecule* (the smallest particle which can exist in a free state and which may consist of one or more atoms) caused dire confusion and conflict among scientists until



Auguste Renoir, The Duck Pond, 1873, oil, 20 x 24", private collection, New York.

the international convention of chemists held at Karlsruhe in 1860. Only then, after a debate of fifty-odd years, did Dalton's atomic theory achieve universal recognition. It seems more than a coincidence that during the very decade in which the scientific world recognized that the universe and all that it contained was composed of tiny dots and dabs of matter, the impressionists first painted pictures composed solely of tiny dots and dabs of pigment.

At this point it is well to note that the writer is not suggesting that the impressionists consciously and deliberately sought to imitate the dance of the atoms when they painted canvases composed of vibrating particles. Ostensibly their interest was in light, in the reflections of light, and even in the "reflections of reflections." But it cannot be denied that in pursuing this objective, they succeeded in producing paintings which did, in fact, poetically evoke the image of the world which the scientists had created, and that they produced these paintings immediately after that image had been finally accepted by science as factually correct and had been given widespread publicity in books, articles and lectures throughout the world. It is more than possible that a less conscious and deeper motivation joined with their consciously assumed purpose to develop the impressionist style of painting. As Pissarro wrote in 1895:

Impressionist art is still too misunderstood to be able to realize a complete synthesis. . . . I remember that, although I was full of ardor, I didn't conceive, even at forty, the deeper side of the movement we followed instinctively. It was in the air! (Letters to His Son Lucien, New York, 1943.)

What was in the air in the 1860's was the atomic theory, and it cannot be seriously doubted that the impressionist painters were familiar with it, for their interest in science and their scientific studies would inevitably have brought this new development to their attention.

The scientific attitude with which the impressionists approached their art is well known; they themselves did not hesitate to acknowledge their debt to science. Their spokesman, Pissarro, in answer to a letter from de Bellio arguing that scientific research into the nature of color and

light, anatomy and the laws of optics could not help the artist, replied:

Now everything depends on how this knowledge is to be used. But surely it is clear that we could not pursue our studies of light with much assurance if we did not have as a guide the discoveries of Chevreul and other scientists. I would not have distinguished between local color and light if science had not given us the hint; the same holds true for complementary colors, etc.

The neo-impressionists, Seurat and Signac, devoted themselves to scientific research, studying Maxwell's experiments, Charles Henry's treatises, the analyses of light and color made by the American scientist, N. O. Rood, and Chevreul's color theories. Until he severed his connection with the neo-impressionists, Pissarro used to refer to this group as the "scientific impressionists" as opposed to Monet, Renoir and Sisley whom he scornfully termed the "romantic impressionists." Romantic or not, these painters were scientifically minded, too, for Monet as well as Seurat had studied the optical discoveries of Helmholtz and Chevreul. It is interesting to note that Helmholtz, who was an exponent of Dalton's atomic theory, pointed out in a work entitled On the Relation of Optics to Painting a relationship between the atomic theory and the appearance of certain effects of light. After stating that the turbid appearance of the earth's atmosphere is caused by fine transparent particles of varying density and refrangibility which fill the air, Helmholtz says:

But science can as yet give no explanation of the turbidity in the higher regions of the atmosphere which produces the blue of the sky; we do not know whether it arises from suspended particles of foreign substances, or whether the molecules of air themselves may not act as turbid particles in the luminous of the substances.

It is hard to believe that this passage could have escaped the eyes of a painter interested in Helmholtz' writings. Thus it is altogether possible that a conscious interest in the effects of light and air joined forces with a deeper and less conscious reaction to the startling facts of the atomic structure of the universe to produce the impressionist manner of painting. And indeed, when we examine the works of the impressionists, we must admit that in fact they are less expressive of light and air than they are of a world composed throughout of dense, vibrating and homogeneous particles of matter.

At the end of the century painting began to move away from impressionism and, in fact, away from the scientific spirit generally. Gauguin indeed led a one-man crusade against the scientific attitude. In a letter to Charles Morice dated April, 1903, he says:

Artists have hopelessly lost their way in recent years due to physics, chemistry, mechanics and the study of nature. Having lost their primitive force, and being out of touch with their instincts, one might say with their imaginations, they have pursued a hundred paths in search of productive elements which they lacked the strength to create themselves.

But this rebellion was doomed to failure, for already by 1903 science was well on the way to developing new "productive elements" to fire the artist's imagination.

The new development began with the work of Henri Becquerel in France in 1895. Becquerel, and later the

Curies, discovered that uranium, radium and certain other minerals emitted invisible rays which could move through space and penetrate various materials, even affecting and destroying living tissues. Experiments with these alpha, beta and gamma rays led to the conclusion that they were actually particles of some kind, a stream of infinitesimally tiny bullets shooting through space. Further experiments led to the discovery that radiation of this sort ultimately caused the element radium to transmute itself in a series of stages to the element lead. Now to transform an element is to transform its components, i.e. its atoms. Consequently the physicists were forced to the revolutionary conclusion that the atom was not the imperishable, indivisible billiard ball which the nineteenth century had supposed it, but was actually composed of multiple and divisible constituents.

Another line of research simultaneously being pursued by other scientists related to the effects of passing electrical discharges through gases. The famous X-ray was discovered by Konrad Röntgen in Germany in 1895, and during the next few years the Englishman J. J. Thompson conducted a series of experiments with cathode tubes, finally reaching the conclusion that electricity itself consists of infinitesimal particles (now known as electrons) eighteen hundred and forty times lighter than the lightest known atom, that of the element hydrogen. In 1899 Thompson published his conclusions, saying:

I regard the atom as containing a large number of smaller bodies which I will call corpuscles. . . . In the normal atom, this assemblage of corpuscles forms a system which is electrically neutral. . . . Electrification of a gas I regard as due to the splitting up of some of the atoms of the gas resulting in the detachment of a corpuscle from some of the atoms. . . . On this view, electrification essentially involves the splitting up of the atom, a part of the mass of the atom getting free and becoming detached from the original atom (Philosophical Magazine, Ser. 5, LXVIII, p. 565).

Thus by the end of the nineteenth century these two lines of experiment had independently resulted in the conclusion that the atom was not the ultimate form of matter but was itself composed of smaller sub-atomic particles, although the manner in which the constituent parts of the atom were associated was still unknown.

Investigation of this problem was immediately undertaken by numerous scientists, and by 1903 Lenard in Germany had proved to his own satisfaction that cathode rays could pass through thousands of atoms without disturbing their internal organization. The conclusion he reached was that the greater part of the atom must be empty space, only about one-thousand-millionths of the whole being solid matter. Lenard's experiments, however, were not accepted as conclusive, and the investigations were continued by others, finally culminating in 1911 when Rutherford published his well-supported findings that the atom was in effect constituted on a solar-system basis-tiny electrons which revolve around a nucleus as the planets revolve around the sun, with the empty spaces between these elements proportionately as huge as the empty spaces of the solar system.

These dramatic and revolutionary discoveries not only shook natural science to its foundations but also aroused the greatest interest outside the narrow world of the physicists. As Eddington has expressed it in *The Nature* of the Physical World:

When we compare the universe as it is now supposed to be with the universe as we had ordinarily preconceived it, the most arresting change is not the rearrangement of space and time by Einstein but the dissolution of all that we regard as most solid into tiny specks floating in void. That gives an abrupt jar to those who think that things are more or less what they seem. The revelation by modern physics of the void within the atom is more disturbing than the revelation by astronomy of the immense void of interstellar space.

The atom is as porous as the solar system. If we eliminated all the unfilled space in a man's body and collected his protons and electrons into one mass, the man would be reduced to a speck just visible with a magnifying glass.

The repercussions in the field of the plastic arts were immediate, the first parallel artistic development being analytical cubism.

In 1907, following Lenard's announcement and while Rutherford was still engaged in experimental work, Picasso painted his famous *Demoiselles d'Avignon*, in which for the first time he portrayed parts of forms and objects as irregular receding and protruding angular planes. This development was continued in 1908 and 1909 by Picasso himself, and by Braque with paintings composed largely of the facets of block-like forms. In 1908 the name cubism was first applied to this new manner wherein angular planes definitely suggest the projecting facets of solid sculptural cubes partially embedded in the canvas. In the portrait of Braque painted towards the end of 1909, however, this sense

Pablo Picasso, Braque, 1909, oil, $24 \frac{1}{4} \times 19 \frac{3}{4}$ ", collection Edward A. Bragaline, New York.



of solidity begins to give way. To quote Alfred Barr in *Picasso* (1946), "not only the surface is broken into facets but the facets themselves begin to slip so that the sense of solid sculptural form so clearly preserved in the *Fernande* seems on the point of disintegration. For the first time the integrity, the unity, of the object is seriously threatened." In the *Portrait of Kahnweiler* and the *Nude* of 1910, this tendency has enormously increased. The facets have "slipped" very definitely, opening up a complex of hollows and spaces within the object. By 1911—the year in which Rutherford announced his conclusion that the atom is in fact almost completely a void—Picasso was painting objects which, though still recognizable as familiar solids, were represented as largely composed of empty space.

Again, it is not the writer's intent to establish that the cubists deliberately and consciously sought to exploit or adapt the findings of contemporary science to their painting. Indeed Picasso has hotly denied any such intention. But the parallelism of their vision of matter and the image evoked by contemporary scientific findings, and the extraordinarily exact chronological coincidence of the developments speak for themselves. No man can assert with assurance that his conscious actions have not been in part provoked by unconscious considerations, and it is natural to believe that sensitive artists living in the first decade of the twentieth century were at least subconsciously influenced by the profoundly disturbing revelations of contemporary science, provided that they were aware of them. And there is evidence to establish this awareness. It is the testimony of Guillaume Apollinaire, spokesman of the cubists, that current scientific developments preoccupied these artists, and that some members of the group, at any rate, pored over scientific works. Writing in 1913, while the cubist movement was still strong, Apollinaire said:

Today, scientists no longer limit themselves to the three dimensions of Euclid. The painters have been led quite naturally, one might say by intuition, to preoccupy themselves with the new possibilities of spatial measurement which, in the language of the modern studios, are designated by the term: the fourth dimension.

The criterion of pure painting: abstract space. Regarded from the plastic point of view, the fourth dimension appears to spring from the three known dimensions: it represents the immensity of space eternalizing itself in all directions at any given moment. It is space itself, the dimension of the infinite. . . . Finally, I must point out that the fourth dimension—this utopian expression should be analyzed and explained, so that nothing more than historical interest may be attached to it—has come to stand for the aspirations and premonitions of the many young artists who contemplate Egyptian, Negro, and Oceanic sculptures, meditate on various scientific works, and live in the anticipation of sublime art (The Cubist Painters: Aesthetic Meditations).

This preoccupation with space seems very natural in a world whose inhabitants have just been informed that all the familiar objects which they have habitually considered to be concrete and solid—including even their own persons—are chiefly constituted of empty space.

But cubism was not the only new art form to develop in this critical period. The development of non-objective painting dates from 1912. The Russian painter, Wassily Kandinsky, was the first artist who deliberately sought to eliminate recognizable objects from the contents of his paintings. Kandinsky started life as an economist and statistician. The change-over from what he called "the sciences" to art was a long and painful process. His first abstract painting appeared in 1911; a series of non-objective etchings followed in 1912. His painting took various directions during his life, but the vast majority of his works are suggestive of objects suspended in space, reminiscent of Eddington's "specks floating in the void."

In his autobiography, written in 1913 and revised and republished in Moscow in 1918, Kandinsky gives a full account of the role played in his development by the atomic discoveries of modern science. After discussing his work at the University of Moscow in the fields of political economy, law and ethnology, and the unsatisfied yearning to paint that plagued him during this period, he writes:

But in those early days, my artistic powers seemed to me too weak and insignificant to entitle me to abandon my other studies and lead the life of an artist. . . . And at that time, when the Russian social picture was particularly somber, my studies were appreciated by many and I decided to train for a scientist. . . .

It was around that time that two events took place, both of which were to influence me strongly in my future life. The first was the exhibition of French Impressionists that was held in Moscow, one of the pictures being *The Stack of Hay* by Claude Monet. The second was the production of Wagner's *Lohengrin* at the Grand Theatre.

Up to this time I was familiar with the realistic school of painting, and—at that—chiefly with the work of the Russian painters. . . .

And then suddenly, for the first time in my life, I found myself looking at a real painting. It seemed to me that, without a catalogue in my hand, it would have been impossible to recognize what the painting was meant to represent. This irked me, and I kept thinking that no artist has the right to paint in such a manner. But at the same time, and to my surprise and confusion, I discovered that it captivated and troubled me, imprinting itself indelibly on my mind and memory down to its smallest detail. But, on the whole, I could make neither head nor tail of it, and was, therefore, quite incapable of arriving at the conclusions which later appeared so simple.

But what did become clear to me, was the previously unimagined, unrevealed and all-surpassing power of the palette. Painting showed itself to me in all its fantasy and enchantment. And deep inside of me, there was born the first faint doubt as to the importance of an object as the necessary element in a painting. . . .

It was in Lohengrin that I felt the supreme incarnation and interpretation of this vision through music. . . .

I could see all my colors, as they came to life before my eyes. Madly, in raging profusion, they drew themselves in my mind . . . it became totally clear to me that art in general possessed a far greater power than I ever had imagined. I also realized that painting possesses the same power as music. It was then that the impossibility of devoting myself to the seeking of these powers became an even greater torment. The temptation to do so was overwhelming. . . . And just then, one of the most formidable obstacles on the way to the realization of my wishes, crumbled and vanished by itself, all thanks to a purely scientific event. This was the disintegration of the atom.

This discovery struck me with terrific impact, comparable to that of the end of the world. In the twinkling of an eye, the mighty arches of science lay shattered before me. All



Wassily Kandinsky, Improvisation No. 30, 1913, oil, 43½ x 43¾", Art Institute of Chicago.

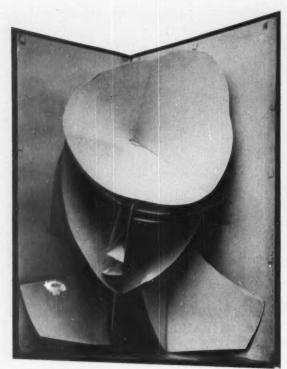
things became flimsy, with no strength or certainty. I would hardly have been surprised if the stones would have risen in the air and disappeared. To me, science had been destroyed. (Quoted by Hilla Rebay, In Memory of Wassily Kandinsky, New York, 1945, p. 53.)

And so Kandinsky, impelled by discoveries concerning the atom, became the father of non-objective painting.

Thus we find the two great developments of twentieth-century painting, abstraction and non-objectivism, coming into being almost simultaneously with science's revelation of the void within the atom—abstraction achieving its first flower in the work of the analytical cubists in 1911, the very year of Rutherford's disclosures, and non-objective painting making its first appearance in the work of Kandinsky in 1912. It is hardly surprising to find that a third development, this time in the field of sculpture, followed hard upon the others.

It is generally considered that the constructivist movement in sculpture, characterized by the substitution of openwork forms in place of the closed monolithic form of the sculpture of the past, began in 1913. Boccioni, Italian painter and sculptor, declared in the futurist manifesto of 1914: "The circumscribed lines of the ordinary enclosed statue should be abolished. The figure must be opened up and fused in space." Naum Gabo, one of the earliest and best known constructivists, has stated this even more simply: "Older sculpture was created in terms of sclids; the new departure was to create in terms of space."

Although the new conception of sculpture lagged somewhat behind painting and unquestionably was derived at least in part from the cubists, whose work was familiar to both Gabo and his brother, Pevsner, another of the constructivist leaders, Gabo's own interests lay in science as well as art. He had studied mathematics, physics, chemistry and engineering at the University of Munich in the years 1909 to 1912. Consequently there can be no doubt that he was well acquainted with the developments in atomic theory that occurred in this period. Thus it would



Naum Gabo, Head of a Woman, c. 1926, plastic, $24\frac{1}{2} \times 19\frac{1}{4}$ ", collection Museum of Modern Art.

appear that the constructivist movement in sculpture, like cubism and non-objective painting, was carried out by artists who had access to and were interested in current scientific discoveries. Under these circumstances, even in the absence of such direct testimony as Kandinsky's, the coincidence of three most important innovations of modern art with the revelation of the Rutherford atom cannot be passed over as accidental.

The theory of atomic matter was not to stand on Rutherford's conclusions, however, for by 1925 the Rutherford solar-system atom had broken down in the light of observed phenomena. In its place Schrödinger, Heisenberg, Dirac, Bohr and others advanced theories supported by mathematical and experimental data which reduced even the tiny floating specks of matter left by Rutherford to insubstantiality. Their conclusion was that what the world still conceived to be material points were in fact nothing but wave systems, "storm centers of waves or ripples in an imaginary sub-ether." Matter had become synonymous with energy. Thus, after a hundred years, the last trace of Dalton's hard, solid, indestructible atom disappeared, and in the scientific world the concept of substance ceased to exist.

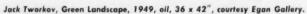
Even more puzzling, by 1927 it was found that although the velocity or momentum of one of the centers of energy to which the electron had been reduced could be experimentally established, and its position separately determined in independent experiments, no method of simultaneously determining position and velocity was available, nor warmy method of accomplishing this conceivable. After a quarter century, science has still made no advance towards the solution of this problem. Indeed, scientists have come to believe that the association of exact position with exact momentum can never be discovered because there is no such thing in nature; and this result has been accepted as

the "Principle of Uncertainty." The electron, the minutest of the old material particles, has become merely "something unknown doing we don't know what."

A similar impasse has been reached by way of Einstein's theory of relativity, in which the only meaning of matter is a region in the space-time continuum where the paths through space are curved. Today science informs us that we live in a world of shadows so abstract as to make it impossible to form any mental picture of what is really happening. Indeed, as Harvey-Gibson says in *Two Thousand Years of Science*, "The further science probes into the hidden recesses of the atomic world, the more obscure and shadowy does objective reality seem, the less material and tangible does Nature appear to be."

Consequently it seems altogether natural that contemporary painting should depict a shadowy and insubstantial world in which amorphous objects hang suspended in a state of watchful expectation and uncertainty. Miro, Gorky, Baziotes, Stamos, the early Matta, Rothko and others exhibit quite consistently an extreme state of suspension, and even in sculpture this quality is evident in such work as Calder's mobiles. Indeed, suspension in some degree is a chief characteristic of twentieth-century painting, for the solidity of the ground under one's feet is a sensation which science has proved meretricious. The only certainty left to man is that in this universe there exists some kind of mysterious activity and some even more mysterious equilibrium. In contrast to those who float and contemplate, others resort to action, searching the void: De Kooning, Pollock, Tomlin, and Tworkov, to name but a few among many. In the works of all these painters we find a network of lines, black or white, which give the impression of darting about the canvas. They are not contours of objects, they do not model form, they are not mere decoration. Their quality is movement. More than anything they suggest the track of some moving object-the wake of a ship, the path of a rocket, the vapor trails left by an airplane. In sculpture, Lassaw's Milky Way is roughly analogous (see cover). There are not many such phenomena in nature. But one man-made product of the twentieth century seems closer in appearance and in spirit to these paintings than any other. It leads us back to the atom.

No man has ever seen an atom, much less an electron or any other sub-atomic "particle." But the movements







Matta, The Vertigo of Eros, 1944, oil, 77 x 99", Museum of Modern Art.



Alexander Calder, Mobile, 1939-40, steel wire and sheet aluminum, height 60", Metropolitan Museum of Art.

of the "particles" through space, their collision with atoms or parts of atoms, and the explosive disintegration of the atom when a head-on collision occurs, have been observed and photographed thousands and thousands of times by means of an apparatus developed by C. T. R. Wilson. This device, commonly known as the cloud chamber, is simply a box filled with moisture-saturated air and provided with a glass panel through which the interior of the box may be observed. When a stream of alpha rays or other subatomic "particles" are shot into the chamber, sooner or later one of them is bound to collide with an electron or with the nucleus of one of the millions of atoms of which the air inside the chamber is composed. The passage of the "particles" through the chamber and the consequent fragmentation of the atom produces trails of gaseous ions on which the excess moisture in the chamber deposits as a result of condensation. The paths of the "particles" and the constituents of the shattered atoms are thus defined by

chains of microscopic drops, much as a cannon ball fired through a field of wheat, though never visible itself, will leave a plainly visible track.

The variety and intricacy of the cloud-chamber tracks is indescribable, and far surpasses any display of fireworks or any natural phenomenon of this type, and the closeness of their resemblance to the paintings of the artists mentioned above speaks for itself. The same darting quality, the same intricacy of movement and surface confusion, and the same underlying suggestion of pattern and organization appear in both.

It is hardly necessary to say that the Wilson cloud chamber and the photographs obtained by its use have received widespread publicity for several decades, for it is perhaps the most important aid to the investigation of the atomic construction of matter that the twentieth century has developed. Such chambers were demonstrated in elementary physics courses at leading universities at least as early as 1930, and sample photographs of cloud-chamber collisions are to be found in many modern physics textbooks. The dramatic quality of these investigations has caught the public interest, and only a few months ago the discovery of still another type of sub-atomic "particle" was publicized by Life in an article which included numerous large-scale reproductions of cloud-chamber photographs. Under the circumstances, there is a reasonable presumption that some of the artists mentioned above were already familiar with the effects observable in the cloud-chamber when they began painting in this manner.

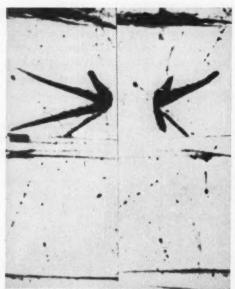
Again, it is not suggested that the paintings are a deliberate *imitation* of the photographs. On the contrary, they are by and large even more intricate, and are freighted with a burden of human emotion totally lacking in the



Cloud chamber photograph of three-particle electron shower, courtesy of Dr. Wayne E. Hazen, University of California, (from Montgomery, Cosmic Ray Physics, Princeton, 1949).



Joan Miro, Sunrise, 1946, oil, 41 \(^3\) x 27 \(^1\)/2", courtesy Pierre Matisse Gallery.



A star formed in the gas of the cloud chamber showing evidence of neutrons, after W. M. Powell (from Montgomery, Cosmic Ray Physics, Princeton, 1949).

cloud-chamber views. But the surface similarity is far too great to be lightly dismissed, and the emotional implications in these paintings of the human mind groping for some state of equilibrium and order in a mysterious, strange and insubstantial universe is too obviously analogous to the state of modern science to be dismissed. It is not too much to assume that an intuitive perception of the analogy between the efforts of the scientist on the physical plane to find order in his shattered world, and the perennial effort of the artist to find the spiritual order and unity which

characterize the work of art, has led the artist to subconscious exploitation of remembered impressions of cloud-chamber photographs as the common symbol of this search.

Thus it appears that during the past hundred years the majority of the important innovations in the plastic arts have occurred simultaneously with, or shortly after, revolutionary changes in man's concept of the constitution of matter. In some cases the artists themselves have admitted that the new theories established by the scientists contributed to their inspiration; others have denied any such conscious influence. But the chronological parallelism and the mutuality of concept and image is overwhelming evidence of the closeness of the relationship. Whether science influenced art, or art influenced science, makes very little difference; for in neither case was the influence accepted in slavish fashion. The scientist has not become an artist nor the artist a scientist. They simply share a mutual preoccupation-today, a mutual problem; and each approaches it in his habitual way and from his habitual point of view. The facts suggest that science was first to establish the new truths about the universe which were then taken into consideration by the artists. But it is well to remember that the scientists of each decade built upon the facts elaborated by their predecessors. In this sense the influences that led Rutherford to his famous conclusions were identical with the influences that led the cubists to develop their new expressions of reality.

Today some complain that modern art is incomprehensible and confusing, cold and detached, devoid of human warmth and as clinically aloof as the laboratory. This is to attribute to the artist exclusively qualities that man has in fact learned to be intrinsic in the universe. Art has become abstract only to the extent to which the world itself has become abstract. By comparison, the material universe of the nineteenth century was a comfortable and cozy environment for man. But this security did not last. The concept of the limitless space of the atom was only the first of a series of shocks which twentieth-century man was to endure. Today nothing is left of matter, and every aspect of solidity seems to have become illusion. Rocks, trees, houses, men and women, all are mere ghosts of their former selves. All that is left is energy and the void. It is not spiritual confusion, lack of humanity, or morbid preoccupation that leads the artist to face these facts of life and produce works of art that take them into account. On the contrary, it would be a cowardly evasion to ignore them and turn blindly to the past for more reassuring subject matter. It is the paradox of art today that what is still known as realism is actually an escape from reality.

The artists, like the scientists, are seeking to find the hidden order and equilibrium that must exist in this new and ominous world—different though it may be from our previous comfortable conceptions. Man may never be restored to his old position of central importance and security. His relationship with the universe may never be more intimate than the austere and semi-religious acceptance of mystery which characterizes the thought of so many artists and scientists today. But scientist and artist alike must continue to scrutinize and evaluate this awesome spectacle, the one with his measurements and mathematics, the other with his intuition and imagination, until a solution has been reached.

Letters to the Editor

Sir:

In reply to Hans Huth's letter in the October, 1950, issue of MAGAZINE OF ART objecting to my remarks on the scope of early American painting, in my otherwise enthusiastic review of the Chicago exhibition catalogue, From Colony to Nation, I wish to point out that he has—I am sure unintentionally—misrepresented the position I stated in the review and in my book American Painting: First Flowers of Our Wilderness. I contend that documents reveal that early American artists engaged in all branches of painting practiced in the Europe of their time, and that the disappearance of most actual canvases other than portraits can be explained on historical grounds that have no relation to what today would be considered esthetic values.

My own guess (based on evidence admittedly incomplete) is that in America as in England, portraiture was most generally and successfully practiced, but that painters who aspired to be more than craftsmen took very seriously, and often regarded as their show pieces, their essays in other modes. Certainly Feke impressed the diarist Alexander Hamilton, not with likenesses, but with his *Judgment of Hercules*. It seems probable that portraits, since they were more closely bound to the needs and philosophical conceptions of American life, were more impressive as works of art than pictures in other modes; yet to shrug off as unimportant the early production of land-scapes, still-life, historical compositions, etc., seems to me to distort the record.

Although, as Mr. Huth states, when landscapes are mentioned in early records they could in some cases be imported canvases or engraving, many documents contain no such ambiguity. To quote two examples among many, Smibert writes that he is amusing himself "with something in the landskip way," and William Williams advertises that he undertakes "painting in general, viz. history, portrait, landskip."

As I recently pointed out in an article, "The Scope of American Art in the 1790's" in Pennsylvania Magazine of History and Biography (January, 1950), our earliest cross-section of the activities of American artists is supplied by the catalogue of this country's first known group exhibition—the Columbianum, held in Philadelphia during 1795. Only nineteen—or almost exactly half-of the thirty-seven artists exhibited any of the portraits which Mr. Huth would have us believe were almost exclusively the interest of the painters; and of those nineteen, many showed other modes as well. Landscape and still-life were almost as popular as portraits, each being shown by eleven artists. I stated that as far as I knew, all the pictures not portraits have been lost; since the article was published, none have been called to my attention. The type of pictures shown can to some extent be inferred from other canvases of the period; but the result, particularly in the case of still-life, is far from conclusive. Would Mr. Huth assume, with only such limited evidence to go on, that the great activity outside portraiture of the majority of the artists who exhibited at the Columbianum was an exception from the rule of American art, or a phenomenon of no importance?

JAMES THOMAS FLEXNER
New York City

Sir:

I am working on the American genre painter, Richard Caton Woodville, Sr. (1825-55). Many of his paintings have disappeared and cannot be traced. Any assistance in locating paintings and drawings by the artist or manuscript material about him, and letters from him, will be greatly appreciated.

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Contributors

CLAY LANCASTER, whose article "Taste at the Philadelphia Centennial" appeared in the Magazine of Art last December, has recently completed a book on Far Eastern Influence on the American House.

FREDERICK S. WIGHT, Associate Director of the Institute of Contemporary Art in Boston, is the author of *Milestones of American Painting* (1949) and of several novels, including *Kindling*, to be published next month by Atlantic Press.

CHARLOTTE WEIDLER of the Department of Fine Arts, Carnegie Institute, Pittsburgh, worked ten months last year at various U. S. Information Centers in Germany. While there, she assembled the exhibition, "Contemporary Berlin Artists," now being circulated in this country by The American Federation of Arts, and the German sections of the 1950 Carnegie International and of the International Watercolor Exhibition to be held at the Brooklyn Museum from May 9th to June 24th.

DARTHEA SPEYER is Assistant Cultural Officer at the Office of the Cultural Attaché, American Embassy, Paris, under whose auspices an exhibition of Lesueur's drawings was presented last Spring.

The article by Ludwic Heydenreich, Director of the Central Institute of Art History in Munich, was presented as a paper last January at the Symposium held in connection with the Diamond Jubilee Celebration of the Philadelphia Museum of Art. Orders for the forthcoming volume containing all the Symposium papers are being accepted at that Museum.

PETER BLANC, who abandondoned the practice of patent law for that of art, teaches drawing and painting at the American University and at his own studio in Washington. His paintings will be exhibited at the Passedoit Gallery in May.

Forthcoming

ALFRED H. BARR, JR., on Matisse, Picasso and the Crisis of 1907; CLIVE BELL, Contemporary Art Criticism in England; SIR KENNETH CLARK, Recent Sculpture of Henry Moore; PAL KELEMEN, Two Village Churches of the Andes; BEAUMONT NEWHALL, The Daguerreotype and the Traveler; and notes by Edgar Kaufmann, Jr. on the current exhibition of Frank Lloyd Wright abroad and by ROBERT GOLDWATER on the season's exhibitions in Paris.

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Film Review

Thorvaldsen, directed by Carl Theodor Dreyer and Preben Frank, with music by Svend Erik Tarp. 16 mm.; black and white; sound; 1 reel (11 min.). Available from Films of the Nations, 62 West 45th St., New York 19; sale \$30; rental

Bertel Thorvaldsen (1770-1844) one of the leading figures of the neo-classic movement, is presented in this film as Denmark's greatest sculptor. Carl Theodor Dreyer is certainly Denmark's greatest film director. He is best known in America for The Passion of Joan of Arc (1928) and Day of Wrath (1944). As the co-director of Thorvaldsen, he has now helped to produce one of the most visually inventive films on art to be seen in this country. Its inventiveness lies in the presentation of Thorvaldsen's idealized, tranquil and rather cool figures. By the combined movements of statue, camera and background, a view of the entire work and then close-ups, the development of an idea from a drawing to a finished work, the film gives a curious kind of semi-existence to Thorvaldsen's somewhat frigid (by modern standards) sculpture.

All art historians may not approve of this presentation of the artist's work. Their interpretations perhaps differ from that of the film, or it may seem to some that the film has improved the sculpture considerably. As in the case of another film, Le Monde de Paul Delvaux, this is an unforgivable crime-but, it would seem, mostly to those who think films should be canned, illustrated lectures. Others who are not so sure that they have the perfect explanation of a work of art, and who are willing to consider various interpretations for what they are worth in casting some light on the artist or work at hand, will find this film stimulating and helpful in spite of its defects.

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Book Reviews

Frank Lloyd Wright, Genius and the Mobocracy, illustrated with 39 drawings by Louis H. Sullivan, New York, Duell, Sloan & Pearce, 1949. 113 pp., 39 plates. \$5.

This is Frank Lloyd Wright's long-awaited book on his lieber Meister, Louis Sullivan. Or rather, it is about both men: their work-life together, the thoughts they shared a half century ago, and Wright's reflections today on the significance of the tragic and triumphant careers which both men have experienced. It is intensely personal, it is often arrogant and bitter and egotistic, and it is honest-as Wright's writing always is.

It is hard for this reviewer to be less personal and candid than the author. My own book on Louis Sullivan was written twenty years ago. I had never met Sullivan (he died before I ever heard of him), and I felt then, and always have since, the great need of those personal memories, insights and convictions which Mr. Wright alone might contribute to complete the picture of a great man.

These are, initially at least, disappointingly repetitious of earlier writings. Anyone interested in Wright-as who is not?already knows those eloquent diatribes on eclecticism, urbanism, professionalism; those tirades of invective against historians, critics, the "intelligentsia," the universities; those sweeping indictments of capitalism, vested interests, and American culture generally; and most of all those bitter assaults on "disciples" who, in Wright's view, inevitably distort, corrupt and dishonor the principles of the master whom they profess to follow.

But these bitternesses and recriminations are, after all, unimportant. They are as eloquently stated as in earlier writings, and have as much and as little truth as before. They are part and parcel of a rebelliousness and arrogance that have been Mr. Wright's since childhood, and without which he could not have been what he is. "I think, as I work, as I am," Mr. Wright always says, and he lives it up to the hilt. And it is refreshing to find him saying-doubtless with a keen glint in his eyes-"Ah-arrogance! Of course, and-I see it now-I was a disagreeable character too.'

Fortunately, it is that keen and even lovable battle-axe who emerges in the part of the story that the book is really about-Wright and Sullivan together. Here the story has reality, vigor and perceptiveness. Of particular interest are the descriptions of Wright's entry into the office and his early work as "the pencil in the master's hand," the excellent characterizations of Adler, of Sullivan himself (and Wright knows and dares to say unpleasant things about Sullivan that in all honesty should be said), the story of the glittering success that attended the completion of the Auditorium, the candid accounts of his own departure (under a cloud) from the office and of the tragic breakup of the partnership with Adler two years later, and most of all the gentle and feeling account of Sullivan's last days.

Of equal interest are Wright's perceptions of Sullivan as a designer: his complete lack of sympathy with the machine, his failure to relate design to materials (his plastic, efflorescent ornament was always germane to clay and terra cotta rather than to wood, brick or metal), and most importantly, Sullivan's failure to achieve a fully organic relationship between exterior and interior. The great skyscrapers were essentially façade designs, "with no direct or apparent relation to actual construction." And yet Wright's appreciation of their splendid form, their prophetic integrity, contributes much to a valid understanding of the great buildings on which Sullivan's fame largely rests.

The hundred or more drawings which Sullivan gave to Wright shortly before his death were an invaluable legacy. Sullivan had signed and dated them, and said questioningly to Wright, "You will be writing about these some day, Frank?" Here for the first time some forty of these beautiful drawings are reproduced ("out of so many, I have chosen the few I think he would have chosen himself"), and are written about with discernment and feeling. Sullivan's happiest moments were spent in creating those marvelously delicate, flexible and vital freehand drawings which were at once lyric poems and the key to his conception of a plastic, organic art:

To look down on such efflorescence (Wright comments) as mere "ornament" is disgraceful ignorance. We do so because we have only known ornament as self-indulgent excrescence ignorantly applied to some surface as a mere prettification.... That extraordinary gift I somehow then regarded (do now) as peculiarly his own. Where before, I ask, in surroundings so peculiarly poetry-crushing... was there ever a man who out of himself devised a comblete beautiful language of self-expression as complete in itself as Wagner's music or the period ornamentation of any of the great styles which time took so many ages to perfect? The Sullivanian philosophy, so far as it was personal to him, is written in that chosen language of his most clearly and if you are going to read him at all it is there to be read at least here. all, it is there to be read at level best.

Wright found the essential Sullivan far more clearly in these drawings than in his literary work; Sullivan used to read his poetry to the young apprentice, but the latter found it a kind of "baying at the moon" and once told him so—with crisp results. "He may have been ridiculous when he wrote: I didn't know. He was miraculous when he drew.'

Twenty years ago, I wrote that Sullivan's oversimplified statement "form follows function" was becoming a pat slogan which, literally interpreted, meant little. "Functionalism" has indeed since that time become so vague a word that, like "liberalism," it means nothing. Of this, Mr. Wright has to say: "Form does follow function as a matter of fact. But what of it? The term 'functionalism' which so many Europeans-and their gallery in this country-use as a mere term seems to be about all that came of it for them or for anyone. . . . " He goes on to argue that this simple basic fact has been so reduced to dogma and cliché, corrupted to the ends of European formalists, adopted as camouflage for a revived "art for art's sake" formula, crystallized into a stencil by the academic authoritarians of the universities (I don't believe it really has), and exploited to advertise "modernistic" sterility, that its usefulness has passed:

Louis H. Sullivan would have been first to gleefully kick these selfstyled functioneers . . . from his doorstep. . . . Instead of the trite fact of the dogma "form follows function," let us learn the dramatic truth that "form and function are one," recognizing what the phrase means when we use it. It means that a building can only be functional when integral with environment and so formed in the nature of materials according to purpose and method as to be a living entity true each in all to all: no small order. But, thus believing, we will gradually learn to express and expand the thought of the great lyric poet that was Louis H. Sullivan. His end is not yet. By deference and implication we will then go far to prevent a slogan, already a decadent dogma, from disastrous encroachment upon our

It is astonishing, but understandable, that Wright's story about Sullivan should have been written without his having read Sullivan's own Autobiography. Its arrival, in printed form, at Sullivan's death-bed coincided, in a sense, with Wright's return to Sullivan after an absence of many years, and it was perhaps associated with the "Sense of Guilt" which is one of the sub-titles of this book. "I could never regard the book (Sullivan's Autobiography)," he says, "without a strange resentment. I know it only by what he read to me himself. It had failed him as I had failed him. It was too late to do him any good. The copy he gave me was soon lost, later, in the tragic destruction of Taliesin II, and I was out on the street. But I am able to read it now and someday I will." There can be little question that Wright, in his work, has achieved greatly and done honor to Sullivan as no other man has. This humble admission of a "failure" which was necessary and inevitable reveals poignantly Wright's greatness

> HUGH MORRISON Dartmouth College



Dictionary of the Arts

By MARTIN L. WOLF INTRODUCTION BY ERIC PARTRIDGE

Here is a dictionary, not merely of art, but of all the arts, covering not a period, but the wide sweep of the world's civilization, with the emphasis placed upon practice rather than upon theory. Only to theorists and historians are theories either interesting or important; it is practice, whether instinctive or arising in theory, which is ultimately important. There are, needless to say, other

works in which many of these terms are to be found. Where this book differs from all the others is in this: whereas they treat of the arts of perhaps the English - speaking countries or, at best, of those countries along with the Continent of Europe,

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Bernard S. Myers, Modern Art in the Making, New York, Whittlesey House, 1950. xvi \pm 457 pp., 6 color plates, 218 illus. \$7.

The emphasis of this book is somewhat more on the making (in the sense of making up-as of a tempest) than on the phenomenon for which the word modern in the title stands. Sixteen of its twenty-two chapters are chronological studies of painting in the nineteenth century developed according to the pattern familiar in many histories of the subject. This work differs from them in that it tells more about the period than is possible in books of wider scope, but it also differs in the inclusion of more material derived from the twentieth century. It contains much of interest and, unfortunately for the purpose of the author's thesis, much that is slow reading for one who wants to get on with the modern story. For, in an attempt to show as "the thread of our story the increasing isolation of the modern painter" in terms of "a series of highly individualistic, escapist and non-naturalistic forms of expression," he is hard put to it to make this isolation clear while at the same time linking it (likewise his announced purpose) to the background factors of the age. Such chapters as those juxtaposing Goya with the French romanticists, Girodet and Gros, are useful, especially since they amplify the usual contents of many a history textbook, but the reader has difficulty in keeping his mind on modern art through all this preamble. Evolution does not confine itself to the rigid numbering of years, and the author wisely avoids any such division. It may be, however, that taking as his point of departure the romantic classicism of David and the classic romanticism of Delacroix, has obliged him to write at greater length and with less directness in order to cover the ground than if he had begun with the impressionists who, in pictorial terms of today, represent a more natural break with

The author is at his best when he draws a relatively close comparison between the environment, the art of the time and its influence on the future. For example:

Turner deals with a modern subject in Rain, Steam, and Speed only through the accident of living from one age into another, for this picture's importance does not lie in its representation of a train crossing a bridge. The fact that it is a violently moving object, that it sheds clouds of steam as it races like a startled ghost through the fog, has more significance in terms of Turner's wish to set down the meaning of these forces. . . . Thus his paintings dedicated to the elements, because they tried to portray phenomena that are essentially formless, tended themselves to become increasingly without form in a purely descriptive sense. . . . Although Turner's greatest influence is on the Impressionists of the seventies and eighties, he has already gone one long step beyond them to a point where color and atmosphere are used not merely to describe a specific moment in time and space—but time, space, and the physical elements within them.

Or another, such as:

To rule well, the new (Mexican) government would have to understand the nature of Mexico's many component races. . . . To express properly the character of the country there would have to be a return to native values, spiritual and artistic.

And this is followed by a careful documentation of the changing artistic forms, from the traditional academic styles transplanted from Europe to the vigorous images invented in keeping with the new spirit by Siqueiros, Mérida, Orozco and others. In this instance, the pattern of the author's procedure is similar to the earlier portions of the book, but I find the passage written with a sympathy and an immediacy which is far more convincing. Or, yet again:

The fight for artistic freedom upheld by Baudelaire, Zola, and others is part of the general tug of war between progress and reaction throughout the century. Although there is no step-by-step artistic parallel to the continuous political struggle between Right and Left, generally the defenders of the right of free speech in art are lined up on the liberal side.

Even though many of the artists are nonpolitical, they are

Even though many of the artists are nonpolitical, they are often attacked as subversive. Any rebellion against authority, even the authority of the "salon" or Academy to prescribe techniques and subjects, is clear evidence of nonconformism.

The feeling in our own times that modern art is a form of radicalism is a carry-over from the nineteenth-century attacks on Realism, Impressionism, and post-Impressionism as politically suspect movements. Just as Courbet had been labeled "socialist" long before he knew anything about politics, the Impressionists were called "communard" in spite of the conservative politics of Degas, the monarchist, and Cezanne, the devout Catholic. The fact that these men were definitely not radical and that their associates, Manet, Renoir, Monet, and Sisley, were not interested in politics, could not save them from attack when the political situation became ripe.

Here is art history which both student and layman can find repeated in press accounts of the present day. It is an example of editorial selection which, I believe, contributes most to an analysis of modern art in the making.

Physically, the volume is well printed and of stout manufacture and will stand much thumbing. The illustrations are numerous and have been placed conveniently in relation to the text and, what is most refreshing, a number, less well known, have been added to the usual examples which repeatedly reveal the nature of the epoch.

BARTLETT H. HAYES, JR. Addison Gallery of American Art

Collection of the Société Anonyme, New Haven, Yale University Art Gallery, 1950. xxiv \pm 223 pp., illus. \$7.50.

A comprehensive catalogue of the now venerable Société Anonyme's Collection has been appropriately published in this middle year of the twentieth century. If further proof is needed that the art of our century has already become history, here it is in a sizable volume covering six hundred and sixteen works by one hundred sixty-nine artists from twenty-three countries. Edited by George Heard Hamilton and compiled by Katherine S. Dreier and Marcel Duchamp, the two trustees of the now famous Société Anonyme, it is far more than the usual factual catalogue, for in addition to almost two hundred illustrations, an extensive text supplies biographical data, critical estimates and bibliographies for each artist. Because the book has been chiefly written by men and women who were personally and often closely associated with the artists included, the information has added value and will undoubtedly become source material for scholars of the future. In certain cases statements and explanations by the artists themselves are quoted, but Katherine Dreier and Marcel Duchamp, occasionally aided by others, have compiled most of the text-a gargantuan job. Particularly telling are Duchamp's generous comments about his contemporaries.

The catalogue celebrates the thirtieth anniversary of the Société Anonyme, which, inaugurated in 1920 as an "International Organization for the Promotion of the Study in America of the Progressive in Art," represents the undaunted work of several public-spirited artists who felt that the United States needed exposure to pioneer movements in modern art. The catalogue appears also as a timely publication announcing the final gift of the collection to Yale University, where it has been on loan for the last nine years, and where it will be permanently available to public and students through traveling shows and

other exhibitions.

The fact that the collection was made by artists and specifically for educational purposes explains in part its individuality. Though Katherine Dreier and Marcel Duchamp are mainly responsible, many other distinguished artists, such as Kandinsky, Man Ray and Campendonk, worked with them. All the great names of the twentieth century are included, but perhaps even more useful are those many lesser-known artists who supported the new movements, for, in a sense, they formed the broad base from which the most progressive art of our times evolved. Since there are few if any publications where their work is adequately documented, this catalogue becomes doubly valuable. To say that Yale has published a volume worthy of this pioneer collection is no exaggeration.

> KATHARINE KUH Art Institute of Chicago

Beaumont Newhall, The History of Photography from 1839 to the Present Day, New York, Simon and Schuster for the Museum of Modern Art, 1949. 256 pp., 163 illus., 1 in color.

For over a century every development of photography has been commented on immediately and voluminously, probably because photographs have been available to everybody and have therefore interested everybody. Photographic inventors and technicians wrote about each discovery in technique; painters and critics wrote about the relations of photography to painting; and then photographers launched a long polemic to establish photography itself as an art. As a result the words and pictures have accumulated to a staggering mass. Out of this disordered profusion of documents, various historians have drawn valuable special studies on aspects of photography, but the few who have attempted general histories have not succeeded in presenting a story both exact in detail and clear in its general lines. Mr. Newhall's book is the first that succeeds in both of these aims. By deftly and constantly weaving in quotations from all imaginable sources, he gives a lively authenticity to each epoch that he describes. And at the same time he has selected his quotations and illustrations so rigorously that the text carries one along like a novel. The book combines two purposes that are hard to reconcile, for it teaches the expert things that he never knew, and yet does not make the general reader feel out of his depth.

Throughout the story it is curious to see how technical needs-for cheaper photographs, for a more portable camera or a faster exposure-have resulted in equipment that produces a new kind of picture. And the new picture creates demands that in turn lead to further technical improvements. This interaction between scientific invention and visual discovery makes

the excitement of Mr. Newhall's story.

The second half of the book covers photography since 1900. The first-hand information obtained from the photographers themselves makes this section lively, though it naturally lacks the perspective that time alone can give to anyone's contemporaries. The first half of the book is the most lucid and fair account that exists of the early days. Since photography was invented in France and England, an American like Mr. Newhall can stand back and tell its story without the bias of local loyalties.

> A. HYATT MAYOR Metropolitan Museum of Art

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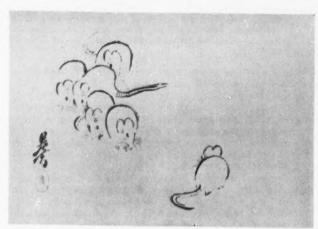
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Zeshin, White Mice, c. 1880, from Japanese Prints, Sharaku to Toyokuni, in the collection of Louis V. Ledoux.

Latest Books Received

THE ART OF INDIA AND PAKISTAN, edited by Sir Leigh Ashton, New York, Coward-McCann, 1950. 291 pp., 276 plates + 8 in color. \$15.

Begg, John, form and format: abstract design and its relation

TO BOOK FORMAT, Brooklyn, McKibbin, 1949. 29 pp., illus.
Carlisle, Anne, english drawings: XIX century (Hyperion Drawing Series), Paris, Hyperion (distributed by Macmillan), 1950. 100 pp., 80 plates, \$2.50.

Chastel, André, FLORENTINE DRAWINGS: XIV-XVII CENTURIES (Hyperion Drawing Series), translated by Rosamund Frost, Pars, Hyperion (distributed by Macmillan), 1950. 104 pp., 80 plates. Childs, George, drawing book of objects, Philadelphia, 1845, reprinted for Walter Schatzki, 1951. 24 pp. of plates. \$3.

Diehl, Gaston, drawing in France: XIX Century (Hyperion Drawing Series), translated by L. Norton, Paris, Hyperion (distributed by Macmillan), 1950. 100 pp., 80 plates. \$2.50.

Dinsmoor, William Bell, The Architecture of Ancient Greece,

London, Batsford, 1950 (revised ed.). 424 pp., 125 figs., 71 plates.

CAUGUIN, with introduction and notes by Herbert Read, New York,

Pitman, 1951. 24 pp., 10 color plates. \$1.95. Gillen, Michael, and Henry and Herbert Kallem, drawing, painting AND SCULPTURE FROM MODELS, New York, Stravon, 1951. 95 pp.,

GIOTTO: FRESCOES, with introduction by Walter Ueberwasser, New York, Oxford University (*Iris Books*), 1950. 21 pp. of text, 3 blackand-white and 17 color plates. \$4.50.

A CUIDE TO CONTEMPORARY ARCHITECTURE IN SOUTHERN CALIFORNIA, edited by Frank Harris and Weston Bonenberger, Los Angeles,

Watling, 1951. 91 pp., 24 illus. \$1.95.
Harrod, R. F., the life of John Maynard Keynes, New York, Harcourt, Brace, 1951. 674 pp., 11 illus. \$7.50.

Ledoux, Louis V., Japanese Prints: Sharaku to Toyokuni: In the collection of Louis v. Ledoux, Princeton, Princeton University, 1950. Unpaged, 45 black-and-white and 16 color plates. \$25.

Malraux, André, TWILIGHT OF THE ABSOLUTE (The Psychology of Art, Vol. III), translated by Stuart Gilbert, New York, Pantheon (Bollingen Series), 1950. 275 pp., illus. \$12.50.

Ormsbee, Thomas H., FIELD GUIDE TO EARLY AMERICAN FURNITURE, Boston, Little, Brown, 1951. 464 pp., 360. illus. \$4.

Sanger, Arthur & Lucille, CABOCHON JEWELRY MAKING, Peoria, Bennett, 1951. 128 pp., 68 plates. \$3.50.

Scott, Robert Gillam, DESIGN FUNDAMENTALS, New York, McGraw-Hill, 1951. x + 199 pp., illus. \$6.

Smith, G. E. Kidder, SWEDEN BUILDS, New York, Bonniers, 1950. 280 pp., 683 illus., 7 color plates. \$8.50.

Stange, Alfred, GERMAN PAINTINGS: XIV-XVI CENTURIES, Paris, Hyperion (distributed by Macmillan), 1950. 160 pp., 112 black-andwhite and 17 color plates. \$7.50.

April Exhibition Calendar

All information listed is supplied by exhibitors in response to mailed questionnaires.

AKRON, OHIO Akron Art Institute, to Apr. 15: Recent European and Amer. Ptg. To Apr. 29: Ohio Printmakers.

ALBANY, N. Y. Albany Institute of History and Art, Apr. 3-16; Clif Bradt, One-Man Show. Apr. 8-29: Made in U.S.A. (AFA). Apr. 17-30: Philip Drapkin, One-Man Show.

ALBION, MICH. Albion College, Apr. 12-May 3: By the Sea (MOMA). Texture and Pattern, MOMA Teaching Partfalia.

Teaching Portfolio.

MHERST, MASS. Museum of Fine Arts, Amherst
College, Apr. 9-20: Prints by Arthur Briscoe. Apr.
22-May 2: Woodcuts by Hiratsuka. Near Eastern

22. May 2: Woodcuts by Hiratsuka. Near Easterr Art.
ANDOVER, MASS. Addison Gallery of American Art, Apr. 1-22: Children's Books of Yesterday (AFA). ANN ARBOR, MICH. Museum of Art, University of Michigan, Apr. 9-May 2: Medieval Indian Sculp. (AFA). Apr. 10-May 27: Mus. Coll.
ASHEVILLE, N. G. Asheville Art Museum, Apr. 3-24: Etchings by Elizabeth White.
ATHENS, GA. University of Georgia, Georgia Museum of Fine Arts, to Apr. 13: Gallery, to Apr. 13: Ptgs by Charles K. Sibley. Apr. 13-23: 7th Ann. ATHENS, OHIO Ohio University Gallery, to Apr. 13: Ptgs by Charles K. Sibley. Apr. 13-23: 7th Ann. Amer. Photog. Exhib.
ATLANTA, GA. Atlanta Art Association and High Museum, to Apr. 8: 12th Ann. Southeastern Circuit Exhib. of Contemp. Ptg. Apr. 15-May 6: Convention and Ann. Exhib., Asan. of Gs. Artists.
Atlanta University, Trevor Arnett Library, Apr. 1-29: 10th Ann. Exhib., Asan. of Gs. Artists. Atlanta University, Trevor Arnett Library, Apr. 1-29: 10th Ann. Exhib. of Ptgs, Sculp. and Prints by Negro Artists. Apr. 15-May 9: Colonial Art in Latin America (AFA).
AUSTIN, TEX. University of Texas, Apr. 8-29: Domestic Architecture of the San Francisco Bay Region (AFA).
BALTIMORE, MD. Baltimore Museum of Art, to Apr. 7: Indoor Garner. Past and Present To Apr. 2-1

Region (AFA).

BALTIMORE, MD. Baltimore Museum of Art, to Apr. 7: Indoor Games: Past and Present. To Apr. 8: Md. Artists' Show, To Apr. 21: Gertrude Stein. Apr. 425: Contemp. Color Lithography (AFA). Apr. 15-May 6: New Hampshire Crafts, 1950 (AFA). Apr. 15-May 6: New Hampshire C. Apr. (AFA).

Walters Art Gallery, to Apr. 8: Egypt of the Middle Kingdom. Apr. 14-May 27: The Illustrated Book from Manuscript to Printing.

BATON ROUGE, LA. Louisiana Art Commission, Apr. 3-29: 6th Ann. Student Show.

BETHLEHEM, PA. Lehigh University Art Gallery, Apr. 10-24: Photographs—International. Apr. 24-

May 20: Oils, Pastels, Black and White by Pearl and Lloyd Van Seiver. BEVERLY HILLS, CALIF. Frank Perls Gallery, to Apr. 25: Marc Chagall. Apr. 26-May 23: Robert Characteristics.

BLOOMFIELD HILLS, MICH. Museum of the Cran brook Academy of Art, Apr. 12-May 6: Eliel Saari

brook Academy of Art, Apr. 12-May 6: Eliel Saarinen Mem. Exhib.
BLOOMINGTON, IND. Art Center, Indiana University, Apr. 5-26: Italian Drwgs.
BOSTON, MASS. Copley Society of Boston, to Apr. 7: Ptgs by Rosamond Coolidge.
Doll and Richards, to Apr. 14: Marine Ptgs by Stanley Woodward.

ley Woodward.

D. C. Heath and Company, Apr. 8-29: Paris Exhib.

Posters (AFA).

Institute of Contemporary Art, to Apr. 25: Jack B.

Yeats.

Museum of Fine Arts, Apr. 6-29: 62nd Ann. Exhib.
of the Boston Soc. of W'col Painters.

Swetzoff Gallery, to Apr. 7: Original Prints by Frasconi, Berger, Beckmann, Picasso, Schmidt-Rotluff,
Nolde, Klee, etc. To Apr. 30: Pavel Tchelitchew.
BOWLING GREEN, OHIO Bowling Green State Unipersity, Apr. 4-25: What Americans are Collecting
(AFA).

(AFA).

BROOKLYN, N. Y. Brooklyn Museum, to Apr. 15:
Art of the Northwest Coast Indian. Amer. Furniture. To May 20: 5th Nat'l Print Ann.

BUFFALO, N. Y. Albright Art Gallery, Apr. 11-May

Calgary Allied Arts Centre, The Coste House, Calgary, Alberta, Canada



6: Patteran Exhib. Apr. 17-May 6: The Exact Instant—Photog. Show.

CALGARY, ALBERTA Calgary Allied Arts Centre, to Apr. 14: 100 Years of French-Canadian Pig. Canadian Wool Soc. Wes Irwin, One-Man Show.

CAMBRIDGE, MASS. Busch-Reisinger Museum, Apr. 1-22: The Lifar Coll. of Ballet Designs and Costumes (AFA). Apr. 1-28: Saints in Gothic Art. Fogg Art Museum, Harvard University, to Apr. 14: Connoisseurship Step by Step. To May 12; Hellenistic and Roman Art on Coins. To June 2: Bernini Bozzetti. To June 30: Sculp. of Southeast Asia. Apr. 10-May 30: 20th Cent. Drwgs and Wools (Richard S. Davis Coll.). Apr. 12-June 7: Contemp. Art. Apr. 20-June 1: Art Versus Illustration. Apr. 23-June 30: Prints and Drwgs of Toulouse-Lautrec. Massachusetts Institute of Technology, Apr. 2-22: Textiles by Anni Albers.

CHAPEL HILL, N. G. Person Hall Art Gallery, University of North Carolina, to Apr. 15: Southeastern State Universities Art Faculty Exhib.

CHARLESTON, ILL. Eastern Illinois State College, Apr. 8-30: Eastern Ill. State College Art Faculty Show. Kappa Pi Art Fraternity Regional Show.

CHARLOTTESVILLE, VA. Museum of Fine Arts, University of Virginia, Apr. 1-May 1: Locally Owned Portraits Painted Before 1830.

CHICAGO, ILL. Art Institute of Chicago, to Apr. 9: Renaissance Earthenware and Stoneware of Germany and Austria. Okumura Masanobu: A Group of Japanese Woodblock Prints. To Apr. 15: 6th Ann. Soc. of Typographic Art. To May 13: Italy at Work: Her Renaissance in Design Today. Apr. 10-May 6: 11th Ann. Exhib. by the Soc. for Contemp. Amer. Art. Apr. 17-May 15: Embroideries of Mariska Karasz.

Chicago Falleries, Association, Apr. 1-30: Ann. Exhib. by Members of the Assn. of Chicago Painters and Sculptors.

Chicago Calleries, Association, Apr. 1-30: Ptgs by Claude Bentley. Ceramics by Margo Bennan.

Mandel Brothers, Apr. 5-28: Ptgs by Members of the Alumni of Chicago Art Institute. Apr. 9-14: Exhib. and Sale of Art and Handicrafts by the Blind. Palmer House Galleries, to Apr. 18: Recent Wools by Ruth Van Sickle Ford. Apr. 25-M

CLEARWATER, FLA. Art Group Gallery, Apr. 6-16: Oils and W'cols by Faye M. Henthorne. Apr. 17-27: Fla. Artist Group, 1st Ann. CLEYELAND, OHIO Cleveland Museum of Art, to Apr. 15: Cleveland Mus. Coll. To Apr. 22: Great Frintmakers as Illustrators.

Apr. 15: Cleveland Mus. Coll. To Apr. 42: Otto-Printmakers as Illustrators.

COLORADO SPRINGS, COLO. Fine Arts Center, Apr. 5-26: 29th Ann. Exhib. of Advertising and Editorial Art (AFA).

COLUMBIA, S. C. Columbia Museum of Art, Apr. 4-25: Vincent Van Gogh, Artist (AFA). Apr. 15-May 12: 20 Amer. Ptgs (1BM). Apr. 15-May 15: W'cols by Gilmer Petroff. Oil Portraits by Charles Crowson.

W'cols by Gilmer Petroff. Oil Portraits by Charles Crowson.

GOLUMBUS, OHIO Columbus Gallery of Fine Arts, Apr. 11-June 30: Glass Paperweights and Laces. Apr. 13-27: Ohio Weavers cuild.

GOBAL GABLES, FLA. University of Miami Art Gallery, Apr. 7-21: Italian Ptgs (AFA-MMA).

GORILAND, N. Y. Cordinad Free Library, Apr. 2-30: Ohondaga Art Guild Exhib.

GORVAILIS, ORE. Oregon State College, to Apr. 30: James Jameson, One-Man Show.

GOSHOCTON, OHIO Johnson-Humrickhouse Museum, to May 1: 9 Centuries of Art of the Book.

DALLAS, TEX. Dailas Museum of Fine Arts, to Apr. 22: Drwgs by Donald Bear. Apr. 1-29: Prints from the Nat'l Serigraph Soc. Apr. 15-May 13: Knife, Fork and Spoon (Walker Art Center). Contemp. Amer. Ptgs.

DAVENPORT, IOWA Municipal Art Gallery, Apr. 1-23: Art of the Circus and Theatre.

DAYTON, OHIO Dayton Art Institute, to Apr. 18: Art Center, Dayton Exhib. Apr. 18-May 20: The City by the River and the Sea, or Five Centuries of Changing Skylines.

DECATUR, III. Art Center, Apr. 8-29: Camera Club Show.

DES MOINES, IOWA Des Moines Art Center, to Apr.

Show.

DES MOINES, IOWA Des Moines Art Center, to Apr. 22: Karl Mattern, One-Man Show. To Apr. 25: 10 Amer. Painters, Amer. Sculptors. Apr. 10-29: Cumming School of Art.—Student Work. Apr. 24-May 13: Drake University Art Dept.—Student Work. Walker Phillips, One-Man Show.

DETROIT, MICH. Detroit Institute of Arts, to Apr. 15: Louis Corinth. Apr. 15-May 13: Friends of Mod. Art.

Mod. Art.

DURHAM, N. C. Duke University, to Apr. 13: History of Theatre (L1FE). Apr. 16-May 5: Guatemala Architecture—Photos Taken by Prof. S. D. Mark-

of Theatre (LIFE). Apr. 16-May 5: Guatemala Architecture—Photos Taken by Prof. S. D. Markman.

DURHAM, N. H. University of New Hampshire, Apr. 2-May 1: Daumier Lithographs. What is Mod Ptg?

EAST LANSING, MtGH. Michigan State College, Apr. 1-21: Newberry Coll. of W'cols and Drwgs. 3 Centuries of Printmaking in America.

EDMONTON, ALBERTA Edmonton Museum of Arts, Apr. 9-14: Lee Yuen, One-Man Show. Apr. 16-21: Cross-Roads Camera Club. Apr. 23-30: Alex Shepety, One-Man Show. Federation of Canadian Artists—Silk Screen Show.

ELMIRA, N. Y. Arnot Art Gallery, Apr. 1-30: African Landscapes by Leigh.

EVANSTON, ILL. Northwestern University, Apr. 9-27: Mod. Ptgs from Private Coll.

EVANSVILLE, IND. Evansville Public Museum, Apr. 1-16: Industrial Art of the Local Public Schools. Apr. 16-May 3: Young Amer. Printmakers (MOMA)

FAYETTEVILLE, ARK. Fine Arts Center, University of Arkanaa, Apr. 15-May 15: A Cross-Section of Contemp. Ptg and Sculp.

FLINT, MICH. Finit Institute of Arts, Apr. 2-23: Northwest Artists. Apr. 15-30. Ann. Snapshot Award Show.

FORT WAYNE, IND. Fort Wayne Art Museum, to Apr. 17: Elizabeth Eddy, One-Man Show. Apr. 17-30: Marcel Breuer's Architectural Exhib. Local Architects' Exhib.

FREDERICTON, NEW BRUNSWICK Fredericton Art Club, Apr. 12 and 13: Local Students' Exhib.

FRADERICTON, NEW BRUNSWICK Fredericton Art Club, Apr. 12 and 13: Local Students' Exhib.

GRAND RAPIDS, MICH. Grand Rapids Art Gallery, Apr. 4-25: Tradition and Experiment in Mod. Sculp. GRENVILLE, N. C. Community Art Center, Apr. 6

Apr. 4-25; Tradition and Experiment Center, Apr. 6. (AFA).

GREEN HLLE, N. C. Community Art Center, Apr. 6. May 1: Etchings of N. C. Bldgs by Louis Orr. GRINNELL, 10WA Art Department, Grinnell College, Apr. 1-21: Prints by Reynold Weidenaar. Apr. 21-30: Photog. Exhib.

HAGERSTOWN, MD. Washington County Museum of Fine Arts, Apr. 1-30: 19th Ann. Exhib. of Cumberland Valley Artists. Contemp. Architecture—Models and Drwgs. Apr. 4-30: Amer. Ptgs of the 20th Cent. (AFA-MMA).

HAMILTON, ONTARIO Art Gallery of Hamilton, Apr. 1-30: B. C. Exhib. Apr. 16-30: Women's Art Assn. of Hamilton.

of Hamilton.

HARTFORD, CONN. Wadsworth Atheneum, to Apr. 8: Hartford Soc. of Women Painters. To Apr. 29: Japanese Prints and Textiles.

HEMPSTEAD, N. Y. Hofstra College, Apr. 2-13: Ptgs by Rebert Harris. Apr. 16-27: 2nd Ann. Exhib., Long Island Artists. Apr. 30-May 31: 20th Cent. European Painters (MOMA).

HONOLULU, HAWAII Honolulu Academy of Arts, Apr. 3-30: The Ceramic Art of China.

HOUSTON, TEX. Museum of Fine Arts of Houston, to

Apr. 11: Toulouse-Lautree (Albi Coll). Apr. 22-May 6: 26th Ann. Houston Artists' Exhib.

INDIANAPOLIS, IND. Art Association of Indianapolis, John Herron Art Institute, Apr. 1-May 8: Contemp. Amer. and European Printmakers. Apr. 8-22: Contemp. British Py. Ransas City Art Institute, to Apr. 10: Mus. Menagerie. Apr. 1-30: Heifitz Lighting Competition Award Winners.

William Rockhill Nelson Gallery of Art, Apr. 1-30: Kans. City Camera Club. Some British Drwgs (AFA).

Kans. City Camera Club. Some Charles (AFA).

KANT, OHIO Kent State University, Apr. 3-26: Visual Education for Architects (AFA).

KEW GANDENS, N. Y. Kew Gardens Art Center Gallery, Apr. 2-30: Group Show of Pigs.

LAFAYETTE, IND. Purdue University, Apr. 2-27: Midtown Galleries.

Midtown Galleries.

Midtown Galleries.

LAGUNA BEACH, CALIF. Laguna Beach Art Association, Apr. 1-29: Members' Exhib.

LAWRENCE, KANS. Museum of Art, University of Kansas, Apr. 1-30: Japanese Folk Art.

LEXINGTON, KY. University of Kentucky, King Library, Apr. 4-25: Fifty Books of the Year, 1950

ordery, Apr. 4-25: PHIL BOOKS OF the Year, 1930 (AIGA). LINCOLN, NEBR. University of Nebraska Art Gal-leries, Apr. 18-May 9: A New Direction in In-taglio. Apr. 24-May 14: Carvers, Modelers, Weld-

leries, Apr. 18-May 9: A New Direction in Intaglio. Apr. 24-May 14: Carvers, Modelers, Welders.

108 ANGELES, CALIF. Los Angeles County Museum, Apr. 15-26: High Speed Photography by Harold E. Edgerton (AFA).

Los Angeles Public Library, Apr. 1-28: Theatrefrom Ritual to Broadway (AFA). Apr. 15-28: Portraits of Antique Automobiles.

100 LISVILLE, KY. Junior Art Gallery, Apr. 7-May 5: Work from Children's Free Art Classes.

1. B. Speed Art Museum, to Apr. 22: Recent Ptgs by Paul Sample. Apr. 1-22: How Prints are Made (AFA-MMA). Apr. 1-28: Kentucky-Southern Indiana Exhib. Apr. 1-22: How Prints are Made (AFA-MMA). Apr. 1-28: Kentucky-Southern Indiana Exhib. Apr. 6-26: Master Prints from the Rosenwald Coll. (AFA).

University of Louisville, Apr. 2-28: Louisville's Architectural Heritage by Louisville Council for Historic Sites and Bildgs.

MADISON, WIS. Wisconsin Union Art Gallery, University of Wisconsin, Apr. 5-May 14: 23rd Ann. Student Art Show.

MANCHESTER, N. H. Currier Gallery of Art, Apr. 1-21: Pottery by Otto and Vivika Heino. Apr. 4-25: The Businessman Looks at Art (AFA). Apr. 12-May 6: Work by Gyorgy Kepes.

MASSILLON, OHIO Massillon Museum, Apr. 1-30: Ptgs by Clyde Singer. "1848" (LIFE).

MILWAUKEE, WIS. Milwaukee Art Institute, Apr. 6-28: 37th Ann. Exhib. of Wisconsin Art. Milwaukee-Dożonier College, Chapman Memorial Library, Apr. 2-23: Audubon Anniversary Exhib. Apr. 23-May 7: Ann. Ptg Exhib. by Extension Class. MINNEAPOLIS. MINN. Minneapolis Institute of Arts, Apr. 10: Old Master Prints. Apr. 17-May 15: Recent Work by University of Minnesota, to Apr. 23-May 30: Drwgs in the Coll. of Richard Davis. Walker Art Center, to Apr. 2-2: Arshile Gorky Mem. Exhib. To June 10: Mod. Chairs and their Prototypes.

types.

MONTCLAIR. N. J. Montclair Art Museum, Apr. 8-22:
Ptgs and Sculp. by 7 Present-Day Women Artists.

MONTREAL QUEBEC Montreal Museum of Fine Arts, to Apr. 22: Art of the Northwest Coast Indians. Apr. 7-16: Art School Exhib. Apr. 7-25: Ptgs for Sale. Apr. 21-30: Work from Children's Classes.

MUSKEGON, MICH. Hackley Art Gallery, Apr. 1-22:
Bird Art Today (Nat'l Audubon Soc. Coll.). Apr. 27-May 21: 25th Ann. Greater Muskegon Artists' Show.

Show.

NEWARK, N. J. Newark Art Club. Apr. 2-24: 26th Ann. Exhib., Work of N. J. Artists.

Rabin and Krneger Gallery, to Apr. 30: Drwgs and Prints by Amer. Artists.

NEWARK, DEL. University of Delaware, Apr. 9-30: Iapanese Prints and Pottery (AFA).

NEW BRITAIN, CONN. Art Museum of the New Britain Institute, Apr. 7-28: Weols by Cleveland Artists.

BRUNSWICK, N. J. Rutgers University, Apr. 22: Mod. Amer. Ptgs from Coll. of a Rutgers

1-22: Mod. Amer. Pies Tom.
Graduate.

NEW HAVEN, CONN. Yale University Art Gallery,
Apr. 10-May 6: French Ecclesiastical Art and
Architecture Since 1930. Apr. 10-May 6: Embroidered Church Vestments.

NEW LONDON, CONN. Lyman Allyn Museum. to Apr.
30: Japanese Doll Coll. Apr. 1-30: Wallpapers.
Katzenbach and Warren. Work of Children's
Classes.

Classes.

NEW ORLEANS. LA. Isaac Delpado Museum, Apr. 1-30: Pigs of Paris by Jean Paul Brusset. Apr. 1-May 2: Four Centuries of Old Masters.

Newcomb Art School, Tulane University, to Apr. 21: Drwgs of the German Renaissance. Apr. 25-May 18: Futurism in Historical Survey.

NEW YORK. N. V. A.C.A., 63 E. 57, to Apr. 7: Pigs by Sarai Sherman. Apr. 2-14: Pigs by Yuli Blumberg. Apr. 9-21: Pigs by Lillian Ames Drake.

Albatross Art Calleries, 22 E. 66, Apr. 1-30: Group Show of Oil Ptgs.

American British Art, 122 E. 55, to Apr. 7: Recent Ptgs by Basil Râkôczi. Sculp. by Jason Seley. Apr. 9-28: Recent Ptgs by Adele Brandwen.

Architectural League of New York, 115 E. 40, to Apr. 6: Gold Medal Sculp. Show.

Aftr. 6: Gold Medal Sculp. Show.

Aftr. 6: Gold Medal Sculp. Show.

Artists, 851 Exington, to Apr. 19: Ptgs by Emerson Woelfler.

Associated American Artists, 711 Fifth, Apr. 9-28: Frank Riemholz. Apr. 30-May 19: Anita Alexander.

Babcock, 38 E. 57, to Apr. 14: W'cols by Jacob Getlar Smith. Apr. 16-May 5: Recent Ptgs by Henry Botkin.

Babcion-Plaza, 101 W. 58, Apr. 5-30: Oils and W'cols by Boris Lurie.

Binet, 67 E. 57, to Apr. 7: Ptgs and Etchgs by Roderick Mead. Apr. 9-30: French, Amer. and Italian Color Prints.

Bodley, 26 E. 55, Apr. 3-24: Ernest Lothar.

Buchhols, 32 E. 57, Apr. 3-28: Max Beckmann Mem. Show.

Show. 1976, 712 Fifth, to Apr. 21: Fernand Leger's 70th

Anniversary.

Anniversary.

Anniversary.

Appellier, 48 E. 57, to Apr. 30: Old Master Ptgs.

ooper Union Museum, Cooper Square, Apr. 18-June

9: Alter Ego: Masks, Their Art and Use.

rective, 18 E. 57, Apr. 2-14: Danny Pierce. Apr.

16-28: Joseph Gans.

wrlacker, 11 E. 57, to Apr. 21: Ptgs by Walter

Stein. Cu Di

Stein.

161 W. 57, Apr. 2-14: Oils by John D. Reppetaux. Apr. 16-28: Sculp. by Harry Marinsky. Apr. 30-May 12: Oils by Angele Kehyan.

161 Feigl., 601 Madison, to Apr. 21: European Expression-

ism. Ferargil, 63 E. 57, to Apr. 10: Oils by Archie Teater. To Apr. 23: John Lavalle. Apr. 12-22: Art Students League Carnival Show. Friedman, 20 E. 49, Apr. 1-30: Gene Federico, Designs for Industry. Grand Central, 15 Vanderbilt, to Apr. 7: W'cols, Oils, Drwgs by Gertrude Schweitzer. Apr. 10-21: Oils by F. Julia Bach. Apr. 17-28: Oils by Alphonse Shelton.

Shelton.

Grand Central Moderns, 130 E. 56, to Apr. 7: Ptgs and Sources, Group Show. Apr. 10-24: Arthur

Gources, Group Show. Apr. 10-24: Arthur Grolier Club, 47 E. 60, Apr. 18-May 31: Treaties. Hocker, 24 W. 58, Apr. 2-21: N. Y. Soc. of Craftsmen. Apr. 23-May 12: Pyes by Hugh Weiss. Hewitt, 18 E. 69, Apr. 2-21: Ptgs by Rondas. Jewish Muscum, 1109 Fifth, Apr. 1-30: Passover Display. Continuing: George Washington Letter to the Hebrew Congregation in Newport, Rhode Island. Written in 1790. Proclaim Freedom: A Pageant of Lewish History. Priceless Jewish Art Objects. Kennedy, 735 Fifth, Apr. 5-30: 19th Cent. Flower Prints.

Prints.
Kleemann, 65 E. 57, Apr. 2-28: Ptgs by Louis Bosa.
Koots, 600 Madison, to Apr. 16: Ptgs by Baziotes,
Gottlieb, Hofmann, Motherwell. Apr. 17-May 7:,
New Sculp. by David Hare.
Kraushaar, 32 E. 57, Apr. 2-28: Ptgs by John Heli-

New Sculp. by David Hare.

Kraushaar, 32 E. 57, Apr. 2-28: Ptgs by John Heliker.

Levitt, 559 Madison, to Apr. 21: Recent Oils and Drwgs by Herbert Barnett.

Macbeth, 11 E. 57, to Apr. 14: Ptgs by Herman Maril. Apr. 16-May 5: Ptgs by Raphael Gleitsmann.

Metropolitian Museum of Art. Fitth and 82, to May 13: Art Students League: 75th Anniversary Exhib. Apr. 20-Indef.: Harkness Coll. Apr. 27-May 27: Italian Theatrical Designs. Continuing: Seeds of Fashion. Goya: Prints and Drwgs. Early Renaissance Ptg.

Midtown, 605 Madison, Apr. 3-21: Ptgs of the Dance by Emlen Etting.

Midtown, 605 Madison, Apr. 3-21: Weols by John Whorf.

Morgan Library, 29 E. 36, to Apr. 7: Recent Acquisitions.

Museum of the City of New York, Fifth and 103, to

sitions.

Maseum of the City of New York, Fifth and 103, to Apr. 30: Charles Dana Gibson's N. Y. Wonderful Moments in the N. Y. Theatre, 1900-1950. At Home in N. Y.—Ptgs of N. Y. Rooms by David Payne.

Home in M. Y.—Pigs of N. Y. Rooms by David Payne.

Museum of Modern Art, 11 W. 53, to Apr. 15: Recent Acquisitions. To Apr. 22: Faces of Korea, Photos. To May 27: Winning Designs from Lamp Competition. Apr. 10-Indef.: Modifician.

National Academy of Design 1983 Fifth, to Apr. 8: Nat'l Academy of Design 1984 Fifth, to Apr. 30: 12th Ann. Exhib. Nat Serigraph Society, 38 W. 57, to Apr. 30: 12th Ann. Exhib., Nat'l Serigraph Soc. New, 63 W. 44, Apr. 3-14: Pigs by Emile Sabouraud. New. Agr. 138 W. 15, Apr. 3-30: Art to Live With. New Art Circle, 41 E. 57, Apr. 1-30: Group Show: Modifylian, Janket Adler, Paul Klee, Randall Morgan, Lee Gatch, Carl Holty.

New Ork Circulating Library of Paintings, 640 Madisson, to Apr. 30: Contemp. European and Amer. Painters.

New York Circulating Library of Paintings, 640 Madisson, to Apr. 30: Contemp. European and Amer. Painters.

New York Historical Society, 170 Central Park W., to Apr. 8: McKim. Mead and White, Architects to N. Y. and the Nation. To Apr. 22: Early Amer. Toys.

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ANTIQUITIES AND NUMISMATICS, INC. 30 WEST 54TH STREET NEW YORK 19 New York Public Library, 476 Fifth, to Apr. 7: Children's Books 1945-50. To Apr. 19: The Library as Publisher. To June 15: Clara and Robert Schumann. Magic in Books. To July 31: Contemp. Amer. Book Illustration.

Parsons, 15 E. 57, Apr. 2-21: Ptgs by Mark Rothko. Apr. 23-May 12: Ptgs by Barnett Newman. Sculp. by Marie Taylor.

Passedoit, 121 E. 57, Apr. 2-28: Ptgs by Jankel Adler, Albert Gleizes and Marsden Hartley.

Penthouse, 15 W. 55, Permanent: Ceramics from France and Switzerland.

Peridot, 6 E. 12, to Apr. 21: Sculp. by Painters. Apr. 23-May 19: Ptgs by Seymour Franks.

Peridot, 25 E. 58, to Apr. 21: 1st N. Y. Showing of Mod. French Ptgs. Apr. 23-May 19: Modigliani Drwgs and African Sculp.

Perspectives, 34 E. 31, to Apr. 21: Contemp. Amer. and French Etchgs. Lithographs and W cols.

Prang Educational Center, 1185 Amsterdam, Apr. 9-20: Ptgs by Joe Wolins.

Rabinovitch Photography Workshop, 40 W. 56, to Apr. 30: The Camera in Commerce.

Rehs, 683 Fifth, to Apr. 14: Ptgs by Peppino Mangravite.

Riverside Museum, 310 Riverside Dr., Apr. 8-29:

Apr. 30: The Camera in Commerce.
Rehn, 683 Fifth, to Apr. 14: Ptgs by Peppino Mangravite.
Riverside Museum, 310 Riverside Dr., Apr. 8-29:
Chicago Soc. of Artiats.
Roerich Academy of Artis, 319 W. 107, Apr. 2-30:
Reproductions of Nicholas Roerich's Ptgs.
Roko, 51 Greenwich, Apr. 3-27: W'cols by Herbert Scheffel.
St. Etienne, 46 W. 57, to Apr. 14: Grandma Moses.
Salpeter, 36 W. 56, to Apr. 14: New Oils by Maurice Sievan.
Scalamandré Museum of Textiles, 20 E. 55, to Apr. 30: Silks of the French Baroque Period.
Schaefer, Bertha, 32 E. 57, to Apr. 7: Ptgs by Ben.
Zion, Apr. 9-28: Ptgs by Bernice Cross, Apr. 30.
Stilks of the French Baroque Period.
Schaefer, Bertha, 32 E. 57, to Apr. 7: Ptgs by Ben.
Zion, Apr. 9-28: Ptgs by Bernice Cross, Apr. 30.
Sculptuse Center, 167 E. 69, to Apr. 14: Sculp. by Leo Amino. Apr. 14-30: Sculp.
Segy, 708 Lexington, to Apr. 15: Ancient Sculp, from the Belgian Congo. Apr. 15-May 30: African Masks.
Seligmanns, 5 E. 57, Apr. 1-30: Italian Primitives.
Van Diemen, 21 E. 57, Apr. 7-20: Ptgs by Sanford Ross. Apr. 23-May 5: Ptgs by Stephen Ronay.
Van Loen.
Village Art Center, 44 W. 11, to Apr. 6: Scenes of

Loen.

Village Art Center, 44 W. 11, to Apr. 6: Scenes of Old N. Y.

Viviano, 42 E. 57, to Apr. 30: Recent Ptgs and Drwgs by Joseph Glasco.

Weyhe, 794 Lexington, to Apr. 11: Color Woodcuts by Antonio Frasconi.

Whitney Muscum of Art, 10 W. 8, to May 6: 1951 Ann. Exhib. of Contemp. Amer. Sculp., W'cols and Drwgs.

Whitney Museum of Art, 10 v. Ann. Exhib. of Contemp. Amer. Sculp., Wcois and Drwgs.

Willard, 32 E. 57, to Apr. 21: Sculp. by David Smith. Apr. 24-May 19: Ptgs by Thurloe Conolly.

Willow, 184 W. 4, Apr. 24-May 12: 2nd Ann. Show of Ceramics by Polia Pillin.

Wittenborn, 38 E. 57, to Apr. 28: Color Engrygs by Terry Haas. Photos by Edward Wallowitch.

NORFOLK, VA. Norfolk Museum of Arts and Sciences, Apr. 8-29: Art Work from the Norfolk Public Schools. Apr. 14 and 15: 4th Ann. Clothesline Exhib. Apr. 15-May 13: Invitation Exhib., Tidewater Artists' Gal.

NORTHAMPTON, MASS. Smith College Museum of Art, Apr. 8-May 6: 20th Cent. French Prints (Kamberg Coll.).

berg Coll.).
NORTHFIELD, MINN. Boliou Hall, Carleton College,
Apr. 3-21: Amer. Ptgs, 1950 (AFA).
OAKLAND, CALIF. Mills College Art Gallery, to Apr.
29: Pottery by Bernard Leach. Apr. 15-May 16:
Photos of the Bay Area.

April:

OBERLIN, OHIO Allen Memorial Art Museum, Oberlin College, Apr. 3-24: Louis Sullivan (MOMA). Apr. 14-May 5: Charles Demuth (MOMA). ORLAHOMA CITY, OKLA. Oklahoma Art Center, Apr. 1-22: Daisy McCook, One-Man Show. Apr. 8-29: All-State Competition of Public School Art. OMAHA, NEBR. Society of Liberal Arts, Joslyn Art Museum, Apr. 4-May 3: Art from the Omaha Public, Schools. Apr. 4-May 6: Omaha Camera Club Ann. Salon.

Museum, Apr. 4-May 3: Art from the Omaha Public, Schools. Apr. 4-May 6: Omaha Camera Club Ann. Salon.

SWEGO, N. Y. State Teachers College, Apr. 5-26: 1950 ALA Nat'l Honor Awards (AFA).

OXFORD, MISS. Mary Buse Museum, Apr. 4-25: English Portraits and Landscapes (AFA-MMA).

PASADENA, CALIF, Fasadena Art Institute, to Apr. 9: Ann. of Pasadena Soc. of Artists. Apr. 13-May 21: Alson Clark Mem. Flower Pygs and Prints.

PIHLADELPHIA, PA. Art Alliance, to Apr. 25: Katherine L. Farrell Mem. Exhib. Pygs by Grace L. Hertz. Apr. 2-30: Architectural Exhib. Glass by Maurice Heaton. Apr. 25-May 28: Pygs by Albert R. Bochroch, Apr. 27-May 31: Caroline G. Granger Mem. Show. Apr. 30-May 28: Experimental Techniques in All Fields of Art.

Georges de Braus, Apr. 2-28: Young School of Paris Painters.

Dubin Galleries, to Apr. 10: Leonard Nelson. Apr. 11-24: Herman Rutman. Apr. 25-May 8: Damian and Combes.

Pennsylvania Academy of Fine Arts, to Apr. 8: Philadelphia Regional Exhib. of Ptg and Sculp. Philadelphia Museum of Art, to Apr. 30: Collections of Lisa Norris Elkins and Staunton B. Peck. Diamond Jubilee Accessions.

Print Club, Apr. 2-20: 28th Ann. Exhib. of Etchgs. Apr. 27-May 16: Ann. Exhib. of Children's Work.

PITTSBURGH, PA. Arts and Crafts Center, Apr. 1-24: Leonard Lieb and Milton Weiss. Apr. 29-May 22: Group Show Competition by Weavers Guild of Pittsburgh.

PORTLAND, ME. Sweat Memorial Art Museum, Apr.

22: Group Snow Competition by Weavers Guild of Pittsburgh.

PORTLAND, ME. Sweat Memorial Art Museum, Apr. 1-8: Work by Students of the Portland Public Schools. Apr. 15-May 13: 52nd Ann. Photog. Salon. Oregon Ceramic Studio, to Apr. 30: Experiments in Weaving by Joan Patterson.

PORTLAND, ORE. Kharouba Gallery, to Apr. 14: Sculp. by Hilda Morris, Apr. 16-May 5: Ptgs by Margaret Tompkins.

Margaret Tompkins.

ROVIDENCE, H. I. Providence Art Club, to Apr. 8:
C. Gordon Harris. Apr. 10-22: Members' Show.
Apr. 24-May 6: Curtis Publishing Co.
hode Island School of Design Museum, to Apr. 15:
Keyboard and Strings: Early Instruments and
Performers (Albert Steinert Coll.). Apr. 25-May

20: Color Lithographs from Permanent Coll. Photog. Enlargements of Prints.
QUINCY, II.L. Quincy Art Center, Apr. 8-30: Masters of the Barbizon School (AFA).
RACINE, WIS. Charles A. Wustum Museum of Fine Arts, Apr. 5-26: 5 Dutch Printmakers (AFA). 5 Minnesota Painters.
RALEIGH, N. C. State Art Gallery, Apr. 20-May 20: 14th Ann. N. C. Artists' Exhib.
READING, PA. Public Museum and Art Gallery, to Apr. 22: 3rd Reading Internal'! Exhib. of Photog.
RIGIMOND, VA. Virginia Museum of Fine Arts, to Apr. 15: Men in Steel—Arms and Armor. W'cols by Allen Palmer. Apr. 20-May 27: Flower Ptgs from Old Vienna. Apr. 27-June 3: Virginia Art, 1951.

from Old Vienna. Apr. 27-June 3: Virginia Art, 1951.

ROCKFORD, ILL. Rockford Art Association, Apr. 2-30: 27th Ann. Jury Show.

ROCKLAND, ME. William A. Farnsworth Library and Art Museum, Apr. 3-21: Nature Photos by Allan Cruikshank. Apr. 15-28: Children's Art Class Exhib. Apr. 22 May 8: Knox County Camera Club Exhib. ROSWELL, N. MEX. Roswell Museum, to Apr. 8: Word and Image. Apr. 15-May 6: Roswell China, Glass and Silver.

ST. AUGUSTINE, FLA. St. Augustine Art Association, Apr. 1-28: Prizes for Oil and W'col Show.

ST. LOUIS, MO. City Art Museum of St. Lonis, to Apr. 22: Vienna Art Treasures.

Washington University, Apr. 4-19: Store Display Exhib.

ST. PAUL, MINN. Hamlin University Galleries, Drew Fine Arts Center, Apr. 9-27: Drwgs by Ivan Mestrovic. Sculp. by Ann Wolfe.

ST. PETERBURG, FLA. Art Club of St. Petersburg, to Apr. 8: Members' W'cols, Apr. 8-22: 99th Print Show of F. F. A. Apr. 22-30: Laura E. Locke of Sarasota.

Sarasota.

SacRamento, Calif. California State Library, Apr. 2-30: Sierra Camera Club.

E. B. Crocker Art Gallery, Apr. 1-30: Wintle W'cols. Pan American Costumes. Apr. 1-May 14: Sacramento State College Exhib.

SAN FRANCISCO, CALIF. Arts Assembled, to Apr. 16: Oils by Mary Navratil. Apr. 17-May 14: Oils and Black and Whites by Basil Cimino.

San Francisco Museum of Art, Apr. 5-26: Brooklyn Mus. Print Ann. (AFA). Apr. 3-26: British Prints (AFA).

Ann. (AFA). Apr. 3-20: British Prints (AFA).

SAN JOSE, CALIF. Rosicrucian Egyptian, Oriental Museum, Apr. 5-26: Rugs from the Ballard Coll. (AFA). Apr. 29-May 18: Venezuelan Pictures.

SANTA FE, N. MEX. Museum of New Mexico. Apr. 1-30: Non-Jury Exhib., N. Mex. Artists. Invitation Exhib., N. Mex Artists.

New Mexico Art Gallery, to Apr. 9: Peter Hurd. Apr. 9-23: Howard Schleeter. Apr. 23-May 7: Rosa M. Curtis.

Apr. 9-23: Howard Schleeter, Apr. 2-3 May 7: Rosa M. Cartis.

SARASOTA, FLA. Sarasota Art Association, Apr. 1-14: Open Show, All Media. Apr. 11-17: Members' Show. Flower Pigs. Apr. 11-30: Ann. Circus Subjects, Ringling Mus. Apr. 18-32: Photog. Salon. Apr. 25-30: Sea Sculp. Selected Mod. Ptgs.

SARATOGA SPRINGS, N. Y. Skidmore College, Apr. 28-May 19: Student Work.

SCRANTON, PA. Everhart Museum of Natural Science and Art, to Apr. 15: Anna Hyatt Huntington Sculp. To Apr. 30: Charles G. Chase Bird Carvings. Apr. 1-30: Wuanita Smith's Prints and Etchgs. Apr. 8-Indef.: Compositions in Textiles by Eva Peri. Apr. 19-Indef. Ptgs and Drwgs by Thornton Oakley. Century Club Members' Ptgs and Amer. Glass. SCATTLE, WASH. Henry Gallery, University of Washington, Apr. 8-30: Music and Art Foundation Invitational Show for Washington Artists.

SIOUX CITY, IOWA Sions City Art Center, Apr. 1-18: Sioux City Camera Club Ann. Show. Apr. 21-May 25: 14th Ann. Iowa May Show.

SOUTH BEND. IND. South Bend Art Association, Apr. 8-29: Art Schools, U. S. A., 1950 (AFA).

SCULPTURE

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THE PAINTERS AND SCULPTORS SOCIETY OF N. J.

APRIL 9-30

Annual Members Exhibition JERSEY CITY MUSEUM SPRINGFIELD, MASS. George Walter Vincent Smith Art Gallery, Apr. 1-22: Scholastic Magazine, 1950. Winners of Nat'l Contest, Jr. High and High School Students.

Students.
Springfield Museum of Fine Arts, Apr. 8-29: 7th
Ann. College Students' Art Competition and Exhib.
SPRINGFIELD, MO. Springfield Art Museum, Apr. 129: 21st Ann. Exhib.

Springheld Museum of Fine Arts, Apr. 8-29; 7th Ann. College Students' Art Competition and Exhib. SPRINGFIELD, MO. Springheld Art Museum, Apr. 1-29; 21st Ann. Exhib.

STANFORD UNIVERSITY, CALIF. Thomas Welton Stanford Art Gallery, Apr. 3-22; Marshall Coll. of European Pigs. New Picasso Lithographs (AFA). Apr. 24-May 13: Taste, What Is It?

STATEN ISLAND, N. Y. Staten Island Museum, Apr. 1-May 10: Ann. Spring Exhib., Staten Island Artists. Apr. 1-June 1: Exhib. of Dolls.

TACOMA, WASH. Tacoma Art Association, Apr. 30: 30 Americans Since 1860 (1BM).

TERRE HAUTE, IND. Indiana State Teachers College, Apr. 8-29; Calif. W'col Soc. Exhib.

TOLEDO, OHIO Toledo Museum of Art, Apr. 1-29: 33rd Ann. Toledo Artists Exhib. Apr. 8-May 6: Toledo Camera Club.

TOPEKA, KANS. Mulvane Art Museum, Washburn Municipal University, Apr. 4-17: 22 Painters of the Western Hemisphere. Apr. 4-24: John Clarkson. One-Man Show. Apr. 24-May 11: Architecture and the City Plan. Permanent Coll. of Mulvane Mus. TORONTO, ONTARIO Art Gallery of Toronto, to Apr. 16: Ontario Soc. of Artists. Canadian Soc. of Graphic Arts. B. C. Binning and Stanley Cosgrove. Apr. 20-May 23: Contemp. Scottish Painters. Royal Ontario Museum of Archaeology, to Apr. 22: Recent Accessions, 1949-1951. Apr. 24-May 20: Mod. Canadian Weaving.

TRENTON, N. J. New Jersey State Museum, to Apr. 30: Scientific Research at Rutgers University. TULSA, OKLA. Philbrook Art Center, Apr. 3-29: Okla. Artists 11th Ann. Exhib. Tulsa Camera Club Ann. Exhib.

UNIVERSITY, MISS. University of Illinois, to Apr. 15: Contemp. Amer. Pig. 1951.

UTICA, N. Y. Munson Williams Proctor Institute, Apr. 1-22: Early Architecture of Utica and Vicinity. Work by James Penny. Derivations from Color Photographs.

Photographs.

VANCOUVER, BRITISH COLUMBIA Vancouver Art
Gallery, Apr. 3-22: Contemp. British Exhib. J. Delisle Parker, One-Man Show. Apr. 24-May 13: British Columbia Soc. of Artists.

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WASHINGTON, D. C. Corcoran Gallery of Art, to Apr. 15: Recent Works by Sue Fuller. To May 13: 22nd Biennial Exhib. Apr. 6-May 6: Advertising

Exhib.

Library of Congress, Apr. 6-20: Fifty Books of the Year, 1950 (AIGA).

Phillips Memorial Gallery, Apr. 1-30: Ben Nicholson.

WEST PALM BEACH, FLA. Norton Gallery and School of Art, Apr. 2-15: Norton School of Art Student Ann. Apr. 2-29: Children's Ptgs. WILMINGTON, DEL. Society of Fine Arts, Delaware Art Center, Apr. 8-29: Del. School Children's Art Work.

Work.

WINDSOR, ONTARIO Willistead Library and Art
Gallery, to Apr. 25: Drwgs and Pigs from Cranbrook Mus. Coll. Photos by Garnet Trowell, Mem.
Exhib. Pigs, Sculp., Ceramics by Helen Boose and
Harry Zeilig.

WOODSTOCK, N. Rudolph Galleries, Apr. 1-30:
Drwgs and W'cols by Woodstock Artists in Miami,
Fla.

WORCESTER, MASS. Worcester Art Museum, to Apr. 8: 3rd Worcester County Group Exhib. To Apr. 22: Condition: Excellent.

Where to Show

NATIONAL

BLOOMFIELD, N. J. 3rd Spring Festival Show of Amateur Artists. June 8, 9, 10. Society of Creative Amateur Artists. Open to all amateurs. All media. Entry fee. Jury. Prizes. Entry cards due May 14. Work due May 18. Write C. A. Emmons, Chairman, 82 Broad St., Bloomfeld, N. I. IRVINGTON, N. J. 8th Annual Art Esthibition, Irvington Art and Museum Association. May 6-25: Irvington Free Public Library. Open to living American artists. Media: oil, w'col, black and white, sculp. Entry fee 82. Jury. Prizes. Entry cards and work due Apr. 27. Write Miss May E. Baillet, Sec'y, 1064 Clinton Ave., Irvington 11, N. J. LAGUNA BEACH, CALIF. Festival of Arts, 1st Annual National Art Exhibition. July 21-Aug. 5. Open to

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PHILADELPHIA, PA. 5th Textile Design Competition.

May. Moss Rose Manufacturing Co. Open to design students. Entries are limited to designs capable of execution on the Jacquard loom. Jury. \$1,000 in prizes. Entries due between May 15-31. Write Philip Bongiovanni, Moss Rose Manufacturing Co. Allegheny Ave. and Hancock St., Philadelphia, Pa.

PITTSBURG, KANS. 3rd Annual Kansas Painters born or residing in Kansas, Media: oils and w'cols. Jury. Prizes, Work due Apr. 15. Write Eugene Larkin, Chairman of Committee, Kansas State Teachers College, Pittsburg, Kans. REGIONAL

any artist who is a citizen of the U. S. A. Media: oil, w'col or pastels. Ptgs should tell a story and be adaptable for reproduction as a "living picture." Jury. \$3,000 in prizes. Work due May I. Write Festival of Arts, 276 Park Ave., Laguna Beach, Calif.

REGIONAL

ABBURN, N. Y. 13th Annual Finger Lakes Salon of Photography. June 2-23. Media: black and white, color and color transparencies. Jury. Entry fee \$1. Work due May 26. Wite Cayuga Museum of History and Art, Auburn, N. Y.

DENVER, COLD. 37th Annual for Western Artists. May 14-July 8. Open to all artists living in states west of the Mississippi and in Wis. and Ill. Media: oils, w'cols, sculp., ceramics, prints, drugs and textules. Entry fee \$1. Purchase awards. Work due Apr. 23. Write Denver Art Museum, 1443 Acoma St., Denver, Colo.

INDIANAPOLIS, IND. 1st Biennial Indiana Ceramic Exhibition. June 3-July 1. Open to artists and craftsmen residing in Indiana, Jury. Prizes. Write Wilbur D. Peat, Dir., John Herron Art Museum, Pennsylvania and 16 Sta., Indianapolis 2, Indiana.

PORTLAND, ORE. 2nd Annual Northwest Ceramic Exhibition. May 16-June 16. Open to artists residing in Idaho, Montana, Oregon and Washington. Media: pottery, ceramic, sculp., enamels. Entry fee \$2. Jury. Prizes. Work due between Apr. 16-May 1. Write Oregon Ceramic Studio, 3934 S. W. Corbett Ave., Portland 1, Ore.

SCHOLARSHIPS

Scholarships for undergraduate college students major-ing in painting, sculpture, design or history of art, paying full tuition at the Allen R. Hite Art Insti-tute. Application blank obtainable from Dean Hilda Threlkeld, University of Louisville, must be sub-mitted by May 10. Regular tuition \$300 for local residents, \$400 for others; scholarship awards total-ling \$5,000. For information write Dr. Justus Bier, Director, Allen R. Hite Art Institute, University of Louisville, Louisville 8, Ky.

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NEW CIRCULATING EXHIBITIONS OF THE AMERICAN FEDERATION OF ARTS:

THE 1951 CORCORAN BIENNIAL. A representative group of approximately forty paintings from one of America's oldest biennial exhibitions of oil paintings will be selected by Hermann Warner Williams, Jr., Director of the Corcoran Gallery of Art, and members of the AFA Exhibition Committee. This exhibition is open to all artists living in the United States, approximately fifty percent by invitation. The Jury of Selection is composed of Edward Hopper, Chairman; John C. Johansen and Eugen Weisz; in addition, Lloyd Goodrich and Magill James serve on the Jury of Awards.

ADVANCING FRENCH ART. Six of the eight artists whose work is included in this exhibition were introduced to the New York public in the Spring of 1950 at the Louis Carré Gallery. This second show was especially selected by the Louis Carré Gallery of Paris AFA for circulation among American museums by the AFA. The following artists are represented by forty of their most recent paintings: Jean Bazaine, Maurice Estève, Hans Hartung, André Lanskoy, Charles Lapique, Gérard Schneider, Pierre Soulages, and Nicolas De Staël.

THE BROOKLYN MUSEUM PRINT ANNUAL. A group of approximately sixty outstanding prints representing all contemporary graphic media will be selected by Miss Una E. Johnson, Curator of Prints and Drawings, from the fifth National Print Annual sponsored by The Brooklyn Museum. The following served on the Jury: Elmer Adler, Princeton University; Josef Albers, Chairman of Design Department, Yale University; and Karl Schrag, artist and teacher.

30th ANNUAL EXHIBITION OF ADVERTISING AND EDITORIAL ART. Original work and reproductions, the year's best in advertising and editorial art, make up this exhibition organized by The Art Directors Club of New York. The final selection of entries will be made by the vote of the membership of the Club. The opening exhibition will be held at The Grand Central Galleries, New York, from May 16th to June 2nd, 1951, after which the show will go on tour for one year.

For a complete list of exhibitions and for information on bookings please write to: Annemarie Henle Pope, Assistant Director in Charge of Traveling Exhibitions, The American Federation of Arts, 1262 New Hampshire Ave., N. W., Washington 6, D. C.